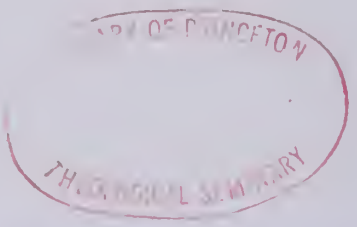

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"It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science in different parts of *Asia*, will commit their observations to writing, and send them to the Asiatic Society at Calcutta. It will languish if such communications shall be long intermitted: and it will die away, if they shall entirely cease."

SIR WM. JONES.

CALCUTTA:

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1865.

By Capt. H. G. Raverty, *3rd Regt., Bombay N. I.*

The issue of the Lithographed plate illustrating Mr. O'Riley's paper, published in the last number, is unavoidably deferred.

JOURNAL

OF THE

ASIATIC SOCIETY.

No. II. 1864.

*An Account of Upper Ḳúsh-ḳár, and Chitrál, or Lower Ḳásh-ḳár, together with the independent Afghán State of Panj-korah, including Túl-ásh.**

Most modern travellers have either not mentioned the two first-named countries at all in their works, or have, from ignorance of oriental languages, or carelessness in writing names, so confounded them with a province of Chinese Túrkistán, that their very existence has been called into question, and even totally denied, by many authors.

Mr. Elphinstone, in his excellent work—"The Kingdom of Caubul," remarks on this very subject in the following manner:—"The resemblance of the names led us into great mistakes when we first arrived at Pesháwar. We bought tea, which we were told was brought from Kanshkaur (Cashgar), and the first people whom we asked respecting the distance told us we might easily go to Kanshkaur, and return within a fortnight. In time, however, we obtained more precise information." These doubts and mistakes have been solely occasioned by not taking proper account of the mode of writing, and the pronunciation of the names of the two countries; that of Chinese Tartary being written كاشغر *(ḳásh-ghar)*, whilst that of which I intend giving some account, is written قاشقار *(ḳásh-ḳár)*, a very different sound to that of the former.

The native land of all the chimeras of Bákhtro-Indian origin, contained in the mythological system of the ancient Persians, as indicated

* Being the continuation to "*Notes on Káfiristán*," in No. 4 of the Journal for 1859.

from the ruins of Persepolis, is the range of mountainous country which separates Bákhtríánah from Hindústán and China, bounded on the east and north by the desert of Kobí; and, as we gather from the first chapter of the Zand-áwestah, is included in the country therein called Eeriene—the supposed abode of the old Medo-Persian race. It was celebrated for its gold and gems, and other precious productions, which it continues to yield, in some degree, up to the present time. It is also the legendary abode of the traditionary monsters, celebrated in Oriental poetry and fable, now become familiar to the natives of the west.

In this mountainous range lies Ḳash-ḳár, or Chitrál, as the lower portion of the valley is also named; it is what has been sometimes called the country of Sháh Kaṭor. It is included in the valley of the upper sources of the river best known as the Kámah, and the Kunar.*

Ḳásh-ḳár (concerning which, probably, less is known than of any other part of Central Asia, not including even Káfiristán), is bounded on the north by the high land of Pámír; south by the Lás-púr range of mountains, bounding the Afghán district of Panj-korah to the north; north-east by the mountainous region to the west of the Yárkand river, known to the people of these regions as Bilauristán or the "Region of Crystal,"† from the quantity of that substance with which it abounds; south-east by Gilgiṭṭ and Little Thibet; and west by the hills of Wákhán, bordering the left bank of the river Oxus, and separating Chitrál, or Lower Ḳásh-ḳár, from Badakhshán and the eastern frontier of Káfiristán, running parallel to the right or northern bank of the Chitrál or Ḳásh-ḳár river. It is a long valley into which a series of smaller valleys and defiles open out, which, in the northern part, act as water-courses to drain Pámír. It is oblong in form, and runs almost in a north-east and south-west direction. It resembles Káfiristán in physical appearance and coldness of climate;

* On looking over the paper on Káfiristán, I find the name of this river has been printed "Kunir" and "Kmer." This spelling, however, is not right: "Kunar" is the correct orthography. In the same paper also, "Bájawer" appears instead of "Bájáwṛṛ."

† "There are certain other mountains called *Bilor* (Bilaur) in the country of the tribe of Turks denominated Hamilán. In two days' journey you arrive at another part of Túrkistán where the Bhotyas and Dyán dwell. Their king is Bhot Shah, and their cities are Gilgitt, Asúrah (Astor?), Salas (Chilás?), etc., and their language is Túrkí." Sir H. M. Elliot's INDEX TO MUHAMMADAN HISTORIANS, page 31, vol. I. See also the extract from Khushḥál Khán's Pus'hto poem, in the "ACCOUNT OF SUWÁT;"- Journal for 1862, page 278.

but it lies somewhat higher, and although rough and difficult in many places, it contains a greater portion of *plateaux*, and a greater number of level and open valleys. In some parts, also, it is well sheltered; and the soil, generally, is rich and fertile, producing much grain, and several descriptions of fruit.

It is divided into two states—Ḳásh-ḳár-i-Bá-lá, or Upper Ḳásh-ḳár, and Ḳásh-ḳár-i-Pá-ín,* or Lower Ḳásh-ḳár—both of which are ruled by separate chiefs, entirely independent of each other; but, at the same time, on the most friendly terms.

The former principality is less known than the latter; hence the two have often been confounded together, and called the country of Sháh Kaṭor. Both rulers are absolute over their subjects, and have the reputation of selling them into slavery without the slightest compunction. The people are designated among themselves by the general name of Chitrár.

Lower Ḳásh-ḳár.

Lower Ḳásh-ḳár, or Chitrál, is the real country of Sháh Kaṭor, and is the most westerly of the two states. It lies immediately under the southern slopes of the mountains of Hindú Kush, which separate it from Badakhshán; and through the centre of this state, as well as of Upper Ḳásh-kár, the river, here named after the country fertilized by its waters, flows to the south-west, and joins the Kámah at Cheghán-saráe.†

The chief town or capital of Lower Ḳásh-ḳár is Drúsh, the residence of Tajammul Sháh, the son and successor of Sháh Kaṭor, who appears

* For the information of "Comparative Philologists," I beg to say that the words *Bá-lá* and *Pá-ín* are Persian.

† "The original country of the *C'hasas* seems to have been the present country of Cashcar to the N. E. of Cabul; for the C'hasas, in the institutes of Menu, are mentioned with the Daradas, who are obviously the *Dardæ* of Ptolemy, whose country now called *Darad* by the natives, and *Dawurd* by the Persian authors, is to the N. W. of Cashmir; and extends towards the Indus: hence Ptolemy, with great propriety, asserts, that the mountains to the north-east of Cabul, are the real Caucasus. The country of Cashcar is situated in a beautiful valley, watered by a large river, which, after passing close to Chágá Seray, Cooner, and Noorgul, joins the *Lundy Sindh*, or little *Sindh*, below Jelálábád, in the small district of *Cameh* (for there is no town of that name), and from this circumstance the little Sindh is often called the river Cameh. **** Cashcar is also Cashtwar, which denomination is generally distorted into Kétwer and Cuttor by Persian authors and travellers. The town and district of Ketwer, mentioned in the life of Amir Timur, is different from this; and lies about fifteen miles to the N. W. of Chágá Seray, on a pretty large river, which comes from Vahí Gálamb: it is generally pronounced Catowr." Wilford: *On Mount Caucasus*;—Asiatic Researches, Vol. VI. pp. 437-8.

to have been a good ruler, and deservedly popular. He was, however, a soldier of fortune originally, and dethroned the rightful sovereign, a grandson of whom Vinge met with, living under the protection of the kind-hearted and hospitable Ahmad Sháh, the Gylfo or prince of Little Thibet. The town is situated in the centre of the valley on a rising ground, on the eastern, or left, or southern bank of the river previously referred to, and over which there is a large and well built wooden bridge, considered by the natives a somewhat wonderful object. The town is said to contain about two thousand houses, and between nine and ten thousand inhabitants. All the chief men of the country have dwellings of considerable size in the capital, where they are expected chiefly to reside. Persons engaged in trade to any extent, together with artizans and mechanics, also dwell almost exclusively at Drúsh.

The other considerable towns are,—Lás-púr (giving name to the mountains so called) to the east of Drúsh and north of Drál;* Puritt to the north of Drúsh and south of Ash-rít; Ash-rít north of Purítt and east of Drúsh; Bedlur† to the northward of Drúsh and south of Hích-gun.

The country lying to the south of the capital is thinly peopled; but towards the north-east and west, it is very populous. The inhabitants are Muhammadans professing the Shí-áh doctrine, the same as followed by the Persians of the present day.

All complaints of importance, and cases of litigation, are investigated and determined at Drúsh by the ruler himself; indeed, all complainants residing within four days' journey, are required to appear before the supreme authorities in all cases. Persons dwelling at a greater distance are permitted to appear before the subordinate chiefs, who are empowered to hear and decide matters of minor importance, subject to appeal to the Sháh.

Tajammul Sháh can collect, upon occasion, a force of 12,000 match-lock-men, who are not paid in money for their services, but in kind. The whole of the people are well provided with fire-arms with rests; indeed, there are few persons without arms. These match-locks are long and heavy, similar to those of Túrkistán (from whence, most likely, they are obtained) and carry a ball a long distance. The Ḳásh-

* A valley containing several small hamlets, belonging to Panj-korah. See page 23.

† Bilaur (crystal) ?

káris are excellent marksmen; and powder and lead being exceedingly expensive, when they do discharge their pieces, it is generally with effect; and no shots are thrown away.

About 10,000 Sí'áh-posh Káfirs,* of the Kámúz tribe, who inhabit the upper, or northern part of the valley of the Ḳásh-ḳár or Chitrál river, lying nearest to the valley of the Kok-cháh river of Badakhshán, and north of the country held by the Kaṭṭár and Kampar tribes of Sí'áh-posh, are subject to the Sháh, to whom they pay a small tribute. Their religion is not interfered with; and they are, upon the whole, very obedient subjects, and are unlike the generality of mountain tribes, inasmuch as they do not rob. The Askún Káfirs, a great portion of whom have embraced Muhammadanism, as well as the Ashpíns, are also subjects of the ruler of Lower Ḳásh-ḳár, as already mentioned in my account of that people.

Upper Ḳásh-ḳár.

This is the territory of Gauhar Amán Sháh, surnamed Chál, son and successor of Malik Amán, the former ruler. The people are Shiáh Muhammadans—that is to say, if a person should ask them what religion they profess, they will answer that they are Musalmáns and Shiáhs; but if he enquire of them what is meant by the word Shiáh, they will probably say they do not know. In the other state of Chitrál, or Lower Ḳásh-ḳár, the people, as far as prayers, fasts, and other exterior observances go, are Muhammadans; but there are few signs of it in Upper Ḳásh-ḳár.

The chief town is Más-túch, or Más-toj, lying about three stages or *manzils* of 25 coss, or 37 to 38 miles each, N. N. W. from Gilgitṭ; but it is a place of no great size, containing only four hundred houses, and about 2,000 inhabitants. It lies in the same valley as Lower Ḳásh-ḳár; and also stands on the right or western bank of the Chitrál or Ḳásh-ḳár river, but nearer its source. The town is protected by a small fortress; and the main routes followed by the caravans of merchants from Pes'háwar, Badakhshán, and Yárkand, meet here. Gauhar Amán, the ruler, resides a good deal at Yasín, which is a still smaller place than Más-túch, but it is more conveniently situated, being nearer towards Dar-band, the fortified pass leading into the country, towards the west. There are numerous ancient ruins in this neighbourhood. Drúsh, the capital of

* See "*Notes on Káfiristán*" in the Journal for 1859.

Lower Ḳásh-ḳár or Chitrál, lies to the south-west of Más-túḳh. To the east of the latter place is Híeh-gún, to the south of which again is Shotai.

The elevated *plateau* of Upper Ḳásh-ḳár is inclosed by towering hills surrounding it on all sides, except towards the south-west, in which direction the Ḳásh-ḳár or Chitrál river, so often referred to, flows. At the same time, however, it must be remembered, that the whole of Ḳásh-ḳár, both Upper and Lower, is crossed by several smaller ranges of hills, and by numerous narrow valleys, some of which are of considerable length.

Several passes lead into the two Ḳásh-ḳárs, the chief of which is the *Kotal* Lahorí, or Lahorí Pass leading into Panj-korah through the Láspúr mountains, dividing the latter from the former state. By this route Más-túch may be reached from Drúsh, which is distant three manzils or stages, occupying two nights and a day, in the summer months. The Sí'áh-posh Káfirs infest the Pass at times, and plunder travellers. The road is also somewhat difficult between Panj-korah and Drúsh; but beyond, it is very good; and the country is like a vast plain, gradually sloping upwards towards the high land of Pámír, to the north and east. The roads throughout Lower Ḳásh-ḳár or Chitrál, and Upper Ḳásh-ḳár, are generally good, and clear of much obstruction; consequently, there would be no difficulty for the passage of light artillery.

The nearest road from Chitrál or Lower Ḳásh-ḳár to Badakhshán lies across the range of Hindú Kush—called the Badakhshán Ridge by Macartney*—on the northern slope of which a small river rises, and after flowing about twenty-five miles, enters the Panj, or Upper branch of the Oxus, at Ishtárak in the latter country. The path lies along the banks of this stream, and is only practicable in the summer months, and then only for persons on foot, who can thus reach Chitrál in three days.

Another route into Badakhshán, practicable for beasts of burden, and that pursued by caravans of merchants and traders, is by the Más-túch Pass—so called from the town of that name—and by descending from thence, along the banks of another small stream, rising on the northern slope of the mountains bounding Lower Ḳásh-ḳár to the north-east, which falls into the Panj at Issár (His-ár?) in the

* Elphinstone's Caubul: Vol. 2nd, Appendix D. pp. 453.

canton of Wákhán.* This is the main road between Badakhshán and Gilgitṭ to Kashmir. The Yárkand road branches off from Issár to the north, through the *darah* or valley of lake Sir-í kol† over the table land of Pámír.

Further west there is another Pass into Badakhshán, called "*Kotal-í-Nuḳsán*," or the "Defile of Mischief." This road winds along the face of tremendous precipices, and through frightful defiles, by which the hamlet of Gáo-khánah (signifying "Cow-house" in Persian,) lying in a plain, may be reached in two or three days. Further north is Rabáṭ, ('Robat' of Wood) on the Wardoj river. A route into Káfiristán joins the above road amongst the defiles of Hindú Kush, by which the districts held by the Kámúz, Askín, and Ashpín tribes of Sí'áh-posh Káfirs may be reached in from three to four days, without much difficulty, in the summer months.

To the north-east of Upper Ḳásh-ḳár (which some also term Shaghnán), is Shágat, distant five *manzils* or stages. It is also called Ḳásh-ḳár, so I am informed; but the people are different in their manners and customs, and are under a different ruler.

The river of Chitrál or Ḳásh-ḳár, also known as the Cheghán-saráe, from the small town of that name, near which it falls into the Kámah, or Kunar, as it flows south to join the river of Kábul, appears—as I have already pointed out at page 3—to have been long confounded with the Kamah or Kunar, of which it is only a feeder. The Chitrál river rises at the "Taláb-i-Níl," or "Cerulean Lake."‡ This lake must not be mistaken for lake Sir-i-kol,§ from which the Panj, or

* "At Issar 10,000 feet, on the termination of the main valley of the Oxus, the road divides into two, which when beyond Killah Panj bore respectively E. 20° S., and N. 40° E. The former conducted to Chitral, Gilgit, and Kashmir, and the latter across the table-land of Pamir to Yarkand." Wood.

† "There is a Pass called Mustodj, or Mastuch, which joins the valley of Wakan (Wákhán). I suppose that the name may be extended to the mountains bounding Chitral on the eastward, as I was told that after crossing the Mastuch Pass, the traveller descends with a stream for several days until he reaches Chitral, the country of Shah Kator." Vigne: "Travels in Kashmir:" Vol. II. p. 309.

‡ "An individual who had seen the region between Wakhan and Kashmir informed me that the Kunir (Chitral) river had its principal source in a lake resembling that in which the Oxus has its rise, and that the whole of this country, comprehending the districts of Gilghit, Gunjit, and Chitral, is a series of mountain defiles that act as water courses to drain Panir." "Wood's Journey to the Oxus."

"There is said to be a lake in Shaghnan, half a day's journey in circumference, which drains the country on the left bank of the Panj, as the Oxus is here called." Ibid.

§ *Sir* in Persian signifies the head, top, summit; great, highest, etc.; and *kol*, in the same language means a pond, a reservoir, a lake, and so forth.

main branch of the Oxus takes its rise; for the Taláb-i-Níl lies much further to the south. The river of Ḳásh-ḳár flows from it, and having passed Más-túch on the west, flows towards the south and south-west, through the two states of Ḳásh-ḳár, and joins the Kámah or Kunar at Cheghán-saráe, as before stated. The existence of this lake was mentioned to Lieut. Wood by natives of Badakhshán, and it is also corroborated by the account of Moorcroft and Trebeck,* who call the lake by the name of Hamú-sar; but which, if it is a Persian name, as it appears to be, would rather seem to refer to that of "Sir-i-kol," the source of the Oxus, and then, interpreted, would signify the "Head or Source of the Hamú," which latter word, in all probability, is more correctly Amú, (امو) the name by which the Oxus is known to the natives of these regions.

North of Más-túch all the streams take a northerly course towards the Oxus and the river of Yárkand; whilst those south of Más-túch run towards the south, and are, ultimately, absorbed into the Indus.

From Upper Ḳáshḳár, the road to Gilgitṭ lies to the south, south-east; and that place is seven stages distant. From thence, pursuing a westerly route, Little Thibet is reached in another seven stages. The Kashmír route lies to the south of Thibet, and is distant about eight stages.

The dress of the people of Upper and Lower Ḳásh-ḳár, from the severe nature of the climate of the country, consists of a number of garments worn one over the other. They are made with immense sleeves; and, when on, lie in a number of folds or rolls. The dresses of the women are made longer and more loose than those of the men, and assimilate, in some measure, to the dress worn by the females of Kashmír.

The men are tall and well made; and the females are remarkable for their beauty,† which is said to surpass that of the Sí'áh-posh women,

* "Westward from Gilgit is Chitrál, distinguished as Upper and Lower. The latter, which is nearest to the Hindu Kush, is situated on a river flowing from a lake called Hamú-sar, and ultimately falling into the river of Kábul."—Moorcroft and Trebeck.

† "Close to Gand'hamádana, along the banks of the Apara Gándicá, or western Gándicá, is the country of the Cetu-mála, 34,000 Yojanas in length, and 32,000 broad. The Cetu-málas are mighty in deeds, strong, and powerful, the women bright *like the Lotus flower:* and whoever sees them, falls in love with them."—Wilford, on the Sacred Isles of the West: Asiatic Researches Vol. VII., page 359.

who are so much celebrated for their good looks. A great many people are yearly sold into slavery; and a boy or a girl can, generally, be purchased for one hundred rupees. The more comely of the females fetch high prices, varying from five hundred to one thousand rupees. Two or three hundred slaves are sent annually into Túrkistán, by the Darwán Pass of Badakhshán, and constitute one of the chief exports from the country.

The imports consist of salt, which is very expensive; chintzes and other piece-goods of low price and coarse texture from Yárkand, Pes'háwar, and Badakhshán, together with boots and shoes, metals, and a few pearls and precious stones from the latter country; tea, sugar, and horses from the former state; sundries, consisting of needles, thread, scissors, knives, combs, &c, of rough workmanship, from Kashmír, and Pes'háwar; iron from Panjkorah; *gur* or coarse sugar, spices, medicines, matchlocks, swords, ammunition, and copper cooking utensils.

The other exports besides slaves, are unbleached silk, the produce of the country, and known amongst the traders of Kábul and other parts of Central Asia, as *koráh* Ḳásh-ḳárí;* shawls also the peculiar manufacture of the country, the woof of which, termed (پود) *púd*, is sometimes of a coarse description of silk called *paṭṭ*† by the Ḳásh-ḳáris, and sometimes of cotton, and the warp called (تار) *tár*, of pure silk. These are rather expensive, ranging in price from twenty rupees; but a cheaper description is manufactured, the woof of which is of wool, and the warp of cotton, and which can be procured as low as two rupees each; *choḳahs*, or cloaks with sleeves, the cloth of which is woven from *pashm*, a species of wool or fur, of three different colours, with which all animals, even dogs, are provided, in this cold region, but more particularly goats. It is called shawl-wool. These garments vary in price from one to twenty rupees.

The peculiar method of weaving these mantles or Ḳásh-kári shawls brings to mind a passage in Pliny with regard to the fabric from which the Coan vests, so much esteemed by the Greeks and Romans, were made. Heeren in his "Asiatic Nations," also refers to the subject in the following terms. "The first Grecian author who has made mention of the silk-worm, and described its metamorphosis, is Aris-

* In Hindí means "unbleached" or "raw."

† The terms پود and تار are Persian. The Sanskrit for silk is पट्ट paṭṭ.

totle in his Natural History. His account, however, does not tally with the silk-worm known in Europe; and it is probable that he had another species in view, though his commentators are by no means agreed on this point. He tells us that the web of this insect was wound off by women, and afterwards woven; and names a certain Pamphyle, of Cos, as the inventress of this art. Whence then was the raw material derived? The Grecian philosopher does not expressly inform us, but Pliny,* who has translated his works, and perhaps had a more accurate copy before him than we possess, speaks of Assyrian,† that is, Asiatic silk, and interprets in this manner the obscure expressions of Aristotle. The Grecian women, he says, '*unravel the silken stuffs imported from Asia, and then weave them anew;* whence that fine tissue, of which frequent mention is made by the Roman poets under the name of *Coan vests.*' A celebrated scholar understands this passage as implying that all the Asiatic garments, described as silken, were in fact *only half composed of silk*, and supposes that the Grecian women *separated the two materials of which they consisted, and that the cotton woof having been withdrawn, the texture was filled up with silk alone.*"‡

Ḳásh-ḳár is, by no means, a poor country; in many places it is well sheltered; and the climate, on the whole, is temperate, but, in winter, it is severe. The soil is rich and fertile, producing much grain, including great quantities of rice. European fruits, such as apples, pears, apricots, plums, peaches, etc., are produced in great quantities, as well as excellent grapes, from which vast quantities of wine are made; for the Ḳásh-ḳáris, although professing Muhammadanism, are, like their neighbours, the Si'áh-posh Káfirs, and the people of Gilgiṭṭ, notorious for their wine-bibbing propensities.

The herds and flocks, particularly the latter, constitute the chief wealth of the inhabitants of Ḳásh-ḳár and the neighbouring petty states, and for which they have been celebrated from remote antiquity.§

* Pliny, XI. C. 22 and 23.

† Bakhtrá and the regions between the Indian Caucasus and the Indus were included in the Assyrian empire.

‡ Foster, De Bysso Antiq. p. 16.

§ "In the mountains also of northern India, the district of Belur (Bílauristán), or vicinity of Cashmire, were found then, as at present, large flocks of sheep which constituted the wealth of the inhabitants." Ctesias: XIII. 22.

There is no fixed rate of taxation in either of the two states; sometimes a fifth or a fourth of the produce is levied; but, at times, as much as one half has been collected.

Trade is chiefly carried on by means of barter, money being very scarce.

The language of both Upper and Lower Ḳásh-ḳár contains a great proportion of Persian words. This, however, is no matter of surprise, when we consider that these countries formed a portion of the extensive empire of the Persians. The people are said to express themselves with much circumlocution.

The Venetian traveller, Marco Polo, appears to have visited Ḳásh-ḳár, which he thus briefly describes. "At length you reach a place called Kásh-ḳár. The province is extensive, and contains many towns and castles, of which Ḳásh-ḳár is the largest and most important*** Besides the Muhammadans, there are amongst the inhabitants several Nestorian Christians." The matter of the Nestorians is a somewhat difficult one to solve. The Sí'áh-posh tribes, inhabiting a portion of the valley of the Ḳásh-ḳár river, may probably be the people he referred to; and whom, differing widely in manners and customs from the Muhammadans of those parts, he, without due inquiry, and chiefly, if not solely, on native report, may have fondly concluded to be Christians.

Independent Afghán States.

The petty states at present held by the powerful and numerous Afghán tribe of Yúsufzí, the most turbulent, and the most independent of the Afghán clans, who have reduced the original inhabitants of these countries to a state of vassalage since their exodus from Kábul in the reign of Mirzá Ulagh Beg, grandson of Tímúr (the account of Herodotus and the Πάκτυες of the Pes'háwar oracle notwithstanding) in which they themselves reign in feudal turbulency—consist of Panj-korah, including that part of the "*Sama'h**—above the junction of the Panj-korah river with the river of Suwát, called the district of Talásh; Suwát; Buner; and Chumlah; the whole lying to the north of the British possessions, part of which includes the south-western portion of the Sama'h, lying nearest to the left bank of the Landḍaey or Panj-korah river. I have given a description of the valley of

* A Pus'hto word signifying "a plain."

Suwát, in a late number of the Journal. The other two districts are, comparatively, little known.

Panj-korah.

Panj-korah, a compound word, signifying "five houses or clans," from the Persian "*panj*," "five," and the Pus'hto, "*kor*," "a house, clan, tribe, etc.," is so called from the five clans of the Malí-zí subdivision of the great Afghán tribe of Yúsuf-zí, which originally peopled it, after the conquest of those parts, north of the Kábul river, by the Afgháns about the beginning of the sixteenth century. Those clans were, Pá'índah Khel, Doshah Khel, Sarandí Khel, Sulṭán Khel, and Pá'í Khel. At present there is a slight difference, from the fact of other clans having sprung up, during the course of so many years.

Panj-korah is the most important, and most considerable of these minor independent Afghán states, lying almost immediately under the southern slopes of Hindu Kush. It runs in a north-east and south-west direction; is of oblong form, being about ninety-five miles in length, from north to south; and forty-eight from east to west. It is bounded, north by the two Ḳásh-ḳars; south by Tál-ásh, and the Pes'háwar district; north-east by Bilauristán, Gilgiṭṭ, and other little known principalities towards the upper sources of the Indus; south-east by the Suwát valley; west by Káfiristán; and south-west by Báj-áwṛṛ, a district belonging to the Tar-kolání tribe of Afgháns. It is surrounded on all sides, and is crossed in various directions, by lofty hills, inclosing as many valleys through which the principal rivers flow, fed by numerous smaller mountain streams. The hills are clothed with dense forests of fir, pine, oak, wild olive, and other trees indigenous to these alpine regions.

The principal rivers, that intersect Panj-korah like the ramifications of a leaf, are, the Lahorí—also called the Dír river (rising on the southern face of the Lás-púr mountains separating it from Ḳásh-ḳár, and giving name to the pass leading into the latter country, the road winding along its banks) which flows nearly due south, passing the town of Dír, the residence of the ruler, for about twenty miles. It is then joined by the Tal from the north-east, which takes its rise in the hills bounding Yasín to the west. This stream has the longest course, and its Pus'hto name, signifying "always," "ever," "perpetually," etc., may refer to the fact of its never becoming dry, as some of the smaller rivers are liable to become in the winter months

The other streams in succession are, the Ú-sherí, whose volume is the most considerable of the Panj-korah rivers, and the Kárah, both of which run in an almost parallel direction to the Tal, with intervals of from twelve to twenty miles from each other; and the Biráh-wol from the north-west, whose source is in the lofty hills held by the Sí'áh-posh Káfirs, separating the valley of the Ḳásh-ḳár or Cheghán-saráe river from the Panj-korah district. All these (except the Biráh-wol) unite near the village of Rabáṭ, and after flowing south for about another twenty miles, under the names of Panj-korah, Úsherí, and Malízí river, receives the small rivers of Bábá Ḳarah, Jandáwal, and Báj-áwṛṛ from the north-west, which, after watering the small valleys bearing those names, unite with the Biráh-wol river before they fall into the main stream in the district of Tálásh. About twenty-six miles further south, the Panj-korah river receives, near the village of Khwadarzí, the river of Suwát—the supposed Suastus of the ancients—a stream of great rapidity in many places, and of considerable length and volume—from the north-east. It rises in the hills bounding Gilgiṭṭ on the west, and runs, for some distance, nearly parallel to the other streams on the same side.* The united waters now become a clear, deep, and rapid river, known as the "Landḍaey Sind," in Pus'hto signifying "The Little" or "Lesser River" (in reference to the Indus, which is called the "Abá Sind," or "Father of Rivers," in this part of its course), which, lower down, near the village of Abází, separates into several branches, which at Hasht-nagar, in the Doábah of the Pes'háwar district, again unite, and, at length, disembogues into the river of Kábul, near the village of Noh-satah, about forty-five miles from its junction with the Suwát. The Panj-korah or Landḍaey river is supposed to be the Guræus of the classical authors, and is the most considerable river of these regions after the Kábul.

The Panj-korah district slopes down considerably from north to south; hence the rapidity of the rivers, the main streams of which, in the summer months, increase so much in volume and rapidity on the melting of the snows, as to become impassable altogether, except by means of rafts, and even then, with considerable difficulty and danger. The Lahorí, or Dír, becomes dry in the winter months; and the other lesser rivers, or *khwaṛṛs*, as they are termed in the Afghán

* See my "Account of Suwát," in the Journal for 1862, page 227, in which an account of the upper sources of the Suwát river will be found.

tongue, viz. the Biráhwol, the Tal, the Kárah, and the Báj-áwṛṛ river and its feeders, are generally fordable at that season.

The whole of these streams give names to as many *darahs*—long, narrow, fertile, and pleasant valleys, inclosed by ranges of lofty hills running in a parallel direction to each other, which are again intersected, in opposite directions, by hills less lofty, and valleys still smaller, each of which has its own little stream, acting as a feeder to the larger ones, and generally its village or small hamlet.

In the winter months, the hills are covered with snow half way down their sides; and in the valleys also, as far south as Dír, snow falls in considerable quantities, and lies on the ground for many days, and sometimes even, for weeks together. Lower down, they have copious showers of rain in the winter season.

The whole of these valleys, as well as the extensive level tract known as the "Sama'h," (except some parts of the latter, which approach the *Merra'h*, or Desert) are fertile, and the land is carefully cultivated. It produces an abundance of grain, chiefly wheat and barley; but *ju'ár* (Holcus sorgum), and *bájrá* (Holcus spicatus), are produced in smaller quantities.

The other principal productions are, cotton to a small extent, sufficient for home consumption; tobacco, and sugar-cane, which are grown in the more southerly parts. Most agricultural produce is exceedingly cheap, and is calculated to be eight times more so than at Kábul. When at the dearest, eight Kábul *sírs* of wheat—equal to about 88 lbs. English—sell for one *rupee* or two shillings.

Many European fruits are also produced in considerable quantities and some wild, but of no great variety. The former consist, chiefly, of apples, pears, and a sort of plum. The hills and valleys, in many places, are also clothed with several sorts of wild flowers, indigenous to these northern climates.

The land, in the more elevated parts, depends solely on rain for moisture; but in the valleys, the irrigation is artificial wherever the water of the numerous streams can be conducted. The chief harvest is the *khurif* or autumn; and but little corn is sown in the spring months.

The northern part of Panj-korah, where the climate is severe, is somewhat thinly inhabited; but towards the south the country is densely populated.

The people, who depend chiefly upon tillage for subsistence, also possess numerous herds of cows and oxen, goats, and buffaloes. Sheep are met with in great numbers, and never reach a higher price than three *rupees*, or six shillings. Lately, I find, they have been brought to Pes'háwar for sale, in considerable numbers. A good buffalo can be purchased for from twelve to twenty *rupees;* but cows constitute their chief wealth. Loads are mostly carried on the backs of oxen and asses. Notwithstanding that fodder is abundant, horses and mules are by no means common; but some few of the former animals are kept for military purposes. Camels are seldom seen in the country.

One-tenth of the agricultural produce is received by the ruler. Cattle are not subject to any tax; but a capitation, or house tax is levied on each house at the yearly rate of three *rupees*.

The *rupee* in general currency throughout the country peopled by the Yúsufzís, is the old Herát coin, worth about twenty-five per cent less than the East India Company's *rupee*, which is also in circulation, since the annexation of the Panjáb, to a limited extent.

From the bounds of the village of Panj-korah to that of Ushírí, grain is sold by weight; but beyond, a measure, called *ao-ga'í* in Pus'hto, is used instead. The *sír* of Panj-korah is one-fifth less in weight than that of Kábul; and the *ao-ga'í* is equal to three quarters of the Panj-korah *sír*.

The present* prices for articles of general consumption are at the following rates:—Wheat, seven Panj-korah *sírs* the *rupee;* barley eight *sírs; shálí* or unhusked rice, eight *sírs: ju'ár*, seven *sírs;* salt, brought from Pes'hawar, six *sírs; roghan* or clarified butter, one *sír; gur*, coarse sugar, brought from Pes'háwar and Jelálábád, one *sír* and quarter; honey, one *sír* and a quarter; cotton, five-eighths of a *sír*—about eighteen ounces English; iron three *sírs; ká-dí*—the coarsest description of cotton cloth—eight Lam-ghán yards.

A few articles, the produce of Hindústán, are imported; but the chief imports, which consist of articles of apparel and clothing of various descriptions, and a little indigo, are brought from Pes'háwar by the traders of that city and district, numbers of whom visit the country, and take back in exchange, iron, honey, and *roghan* or clarified butter.

* This paper was written a few years since: the prices may have therefore altered, and allowance for any errors must be made accordingly.

There are a number of iron mines throughout Panj-korah, from which all the neighbouring countries are supplied. Some are situated in the Lás-púr mountains, and in the neighbouring hills of Biráh-wol, but the most extensive mines are in the Aw-shírí and Ḳárah *darahs*. In fact the whole of the Panj-korah district teems with iron and galena (called *surmah* or black antimony by the Afgháns), and there is no doubt but that it contains other even more valuable minerals.

Great quantities of yellow soap are made from the fat of sheep and goats, at the village of Gúna-ṭír, where all the houses, with but few exceptions, are provided with oil-presses and machines for boiling the soap, which sells at the rate of five *sírs* the rupee. This village supplies the whole of the surrounding hill countries with this necessary. It is held in great estimation as being free from adulteration with *jú'ar* flour and the like; and is pure fat and potash.

There is a considerable trade carried on between the districts to the south-east and west, as well as with Badakhshán, Ḳásh-ḳár, Yárkand, and other places in Chinese Túrkistán, by means of *káfilahs* or caravans. The route to the latter countries is through the Lahorí Pass, near the town of Dír, where the chief of Panj-korah resides; and where he imposes a small tax or transit duty on merchandize. Travellers and traders are treated with great kindness and hospitality throughout the Panj-korah district; and with the exception of the independent tribes of the Sí'áh-posh Káfirs (who are not subject to the ruler of Lower Ḳásh-ḳar) who, at times, infest the Lahorí Pass, the roads are safe, and the honesty of the people is so great, that the trader may generally penetrate into the remotest valleys, and in the hilly tracts, without danger of being molested by thieves or robbers.

The *darahs*, or valleys to the east of the main stream of the Panj-korah river, which divides the district from north to south, together with the names of the villages, clans occupying them, and names of their *Kad-khudás* or head-men, are as follow.

SHAKOLACY DARAH.

Village.	*Clan.*	*Chiefs or Head-men.*
Ḳaṛah,	Sháhí-Khel,	Zardád Khán.
Deh Harún,	Shahí-Khel,	Maæsúm Khán.
Koṭ-ki,	Shahí-Khel,	Hyder Khán.

Village.	*Clan.*	*Chiefs or Head-men.*
Karí,	Pá-índah-Khel,	Saæd-ullah Khán, brother of the Chief of Panj-korah.
Shakolaey,	Núrah-Khel,	Aiyúb Khán.

Tímúr-kalah Darah.

Tímúr kalah,	Núrah-Khel,	Sirdár Khán.
Khún Koh,	„ „	Mohsan, and Ghaffár.
Dán-wah,	Akhúnd Khel,	
Char-pírah,	Nasr-ud-Dín Khel,	Muhammad Khán.
Shahr,	„ „ „	Sarwar Mí-án.

Mían-mándah Sáhib-zádahs, or descendants of some holy man.

Rabáṭ*-i-Muhammad Khán Darah.

Sám-rí,	Pá-índah Khel,	Gul Khán.
Rabáṭ,	Nasr-ud-dín Khel,	Mahabbat Khán.
Kánj-lah,	Mí-án Khel,	Aká Sáhib.

Káw-ní Darah.

This *darah* contains only one village, named Dilkháh, but there is a number of small *bándahs* or hamlets, some of which do not contain more than a few families. This valley contains altogether about a thousand houses. The people are Pá-índah Khels, and the headman for the whole is nominated by Ghazan Khán, the chief of Panj-korah.

Malah-kand Darah.

This *darah* is held by people of different clans. The hamlets are very small, and the whole *darah* may contain about eleven hundred houses.

Túrmang Darah.

Akhkrám,	Pá-índah Khel,	Suyed Rahmán.
Dúd-bá,	„ „	Sher Æalé Khán.

There are also several other smaller villages or hamlets containing a few families.

Kárú Darah.

This *darah* is inhabited chiefly by families descended from the original inhabitants of the country, who live in a state of vassalage to their Afghán conquerors. There are also a few Yúsufzís residing in it, belonging to the clans already mentioned.

* Arabic for a caravansarae.

Village.	*Clan.*	*Chiefs or Head-men.*
	Na-hák Darah.	
Nahák,	Pá-índah Khel,	Chirágh Sháh.
Wáracy,	„ „	Bázúe.
Izghánch,	Gudaey Khel,	Allah Yár Khán.
Dárojnah,	Sulṭán Khel,	Suyed Amír.
	U-sherí Darah.	
U-sherí,	Sulṭán Khel,	Kází, Æabd-ur-Rahmán.
Jabar,	„ „	„ „
Kandí-kár,	Mí-án Khel,	Saiyid Ádam.
Kázan,	„ „	„ „
Bíbí Yáwarah,	Pá-índah Khel,	Æabd-ullah Khán.
Mír Al-más,	„ „	Zaríf Khán.
Tar-pah-tár,	„ „	Hajúm Khán.
	Bar (Upper) U-sherí Darah.	
Bar U-sherí,	Pá-índah Khel,	Anwar Sháh Khán.
Damah-zár,	„ „	Ahmad Khán.
Pálám,	„ „	Fazal Sháh.
Sam-koṭṭ,	„ „	Sher-i-Zamán.
Báṭil,	Mí-án Khel, or de-	Khair-ullah Mí-án.
Bar-kand,	scendants of Akhúnd Darwezah, and his family,	Karím Dád, a direct descendant of the celebrated Akhúnd Darwezah, author of the Makhzan Pus'hto.*
Kor-koaey,	„ „	Mí-án Nazím.
Násht-ámal,	„ „	
Habíbí.	„ „	
Kamán-gar,	Núrah Khel,	Hasíb.

This last mentioned village derives its name, signifying, in the Persian language, "Bow-maker," from the fact of the first inhabitants having been makers of that weapon, for which their descendants are still celebrated.

Zarah-Khel Darah.

This valley contains a number of small hamlets having but few inhabitants. The head-man is appointed by Ghazan Khán, the chief.

* For account of his writings, see my Pus'hto Grammar.

Drál Darah.

This valley is very secluded, being inclosed on all sides by lofty hills; and the hamlets are very small. The people pay a small tax to Ghazan Khán.

The following *darahs* and villages are situated to the west of the Panj-korah river.

Háráng Darah.

This valley contains a number of small hamlets, many of which are now in ruins and deserted. The zíárat or shrine of a saint, named Ghází Sáhib, is situated in this *darah*.

Shúh Darah.

The river of Bájáwṛṛ, which rises in the hills to the west of Panj-korah, flows through this *darah* from west to east; and after receiving the Jandáwul and Bábá Ḳarah rivers, from the valleys bearing those names, joins the Biráhwol. The *darah* of Biráhwol, through which the last named river flows, before entering the *darah* of Shúh, lies higher up, and will be noticed in its proper place.

There are numerous small villages on both sides of the river, in this valley, the whole of which have numerous gardens and orchards. Ghazan Khán of Dír, the chief, appoints the head-man.

Báhá Ḳarah Darah.

This valley contains small hamlets only. The people were formerly independent, and were under a chief or head-man of their own, named Aslam Khán; but several years since it became dependent on Ghazan Khán, who appoints a head-man of his own.

Biráhwol Darah.

The chief place in this valley is Biráhwol, hence its name, and that of its river. It is the residence of a petty independent chief, named Muhammad Æalí Khán, of the Afghán tribe of Tarkoláni, which possesses Bájáwṛṛ; and, therefore, although included in Panj-korah, it can scarcely be deemed a dependency of it, as the chief pays no tribute to Ghazan Khán. There are several iron mines in this valley, which have been worked for centuries past. There are also several hamlets, but they are small in size.

Maídan Darah.

The only village of any size, contained in this *darah*, is Khemah, inhabited by Sháhí Khels, of whom Bárún is the head-man. There

are, however, numerous small hamlets. The people have the name of being the only robbers in the district of Panj-korah, which may be accounted for, in some measure, from the fact of this valley being the most difficult of access in the whole district.

Panj-korah Darah.

Bar (upper) Panj-korah,	Sulṭán Khel,	Sher Æalí.
Kúz (lower) Panj-korah,	„ „	Págul.
Páṭ-áw,	„ „	Mardán.

Dír, the residence of the chief.

Dír, the capital of the Panj-korah district, contains about two hundred houses, not including the citadel, and some twelve hundred inhabitants. It is protected by a considerable fortress or citadel, situated on a high mound or eminence, a spur from the Lás-púr mountains. The walls, which are substantially built of mud and stone, are about four hundred yards long, three hundred in breadth, and twelve yards in height; and are flanked by four towers or bastions. Within the citadel, which is kept in excellent repair, there is a large mosque, besides several other buildings, including the residence of the chief Gházan Khán, and his numerous family, together with his immediate followers, constituting his standing army, the whole of whom, with their families, amount to about two thousand five hundred people.*

There are, in this, as in the other valleys, numerous small hamlets.

Shamúr-gar Darah.

Shamúr-gar,	Pá-índah Khel,	
Khír,	„ „	Allah Yár Khán.
Amlúk-nár,	The people are the descendants of the aboriginal	
Jabalak,	inhabitants of the country, and called by the Yúsufzís *raæyats* (vassals) and *fakírs* (villains).	

The two smaller *darahs* of Tahánkí and Dúdbá are contiguous to this valley, and open into it. They contain a few hamlets.

The other chief places in the Panj-korah Darah, are Ghundí,† Chakyá-ṭan, Aroṭṭah Sín, and Panah-kút.

* Bábar calls this place Panj-korah, probably as it was the capital of the district. He notices it as follows. "Panj-korah lies a little above the middle of the slope of the hill. It is necessary, for nearly a *kos*, to climb up, laying hold of the ground." Memoirs, pp. 250.

† Signifying, in Pus'hto, a detached hill.

The chief *bázár*, or market towns, or marts of trade in the district are, Dír, Biráh-wol, Sam*-khál, and L'waṛṛ†-khál.

There are three other *darahs* dependent on Dír, or the Panj-korah Darah, viz. Ḳásh-ḳárí, so called from leading into Ḳásh-ḳár by the Láhorí Pass; Do-bundí, by the other Pass through which Ḳásh-ḳár may be reached in two stages; and Kanír. They all three contain some small hamlets at considerable distances from each other.

From the Maidan Darah towards the west, there is a route leading into Bájáwṛṛ; and another from the Biráh-wol Darah, in the same direction. There are also two principal routes into Suwát from the Panj-korah district; one through the U-sherí, and the other through the Kárú Darah. Proceeding south from the villages of Tímúr-kalah and Kát-kalah, and passing through the small district of Tálásh (a short account of which will be found further on), the main road leads by Hashtnagar to Pes'háwar. It is good, and clear of obstruction, and is the only one by which guns could be taken into Panj-korah. Sulṭan Muhammad Khán, Bárakzi, the brother of Dost Muhammad Khán of Kábul (a person who is likely to cause us some trouble ere long, when the Dost shall have been gathered to his fathers), entered the Panj-korah district by this road, several times, whilst he was in possession of Pes'háwar.

Ghazan Khán of Panj-korah is the most powerful chief amongst the whole of the Yúsufzís, whether Yúsuf or Manḍar; and by his great abilities and foresight, has rendered himself, for many years past, respected by all the other princes and chieftains of these parts. He is on friendly terms with the chief of Bájáwṛṛ; and is in alliance with the rulers of Chitrál and Upper Ḳásh-ḳár. He is the son of Ḳásim Khán, mentioned by Elphinstone in his account of the kingdom of Kábul, son of Zafar Khán, son of Ghulám Khán, son of Akhúnd Ilyas; and belongs to, and is the chief of, the Pa-índah Khel branch of the Yúsufzí tribe, which is also known as the "*Akhúnd Kor*," signifying, in the Pus'hto language, "The Teacher's family or house." At the time these notes were made, three years since, Ghazan Khán was about seventy years of age, and has since probably died; but I have not heard of his decease.

The following tradition concerning the foundation of the family of

* Sam, level, flat.
† L'waṛṛ, high, lofty, etc.

Akhúnd Ilyás, who lived in the reign of the Mughal Emperor Aurangzeb, is related by the people of those parts :—Akhúnd Ilyás, a Darwesh and God-fearing man, was blessed with two sons—Aiyúb and Ismáæíl. The former who was the elder brother, had occasion, one day, to give some admonition to the younger, which the latter was not inclined to listen to in future, so he left the paternal roof in disgust, and proceeded to Kábul ; and although of tender years only, he succeeded in obtaining service with the Governor of that province. Here his cleverness and great talents attracted his master's notice ; and he was advanced from one post to another, until, such was the confidence placed in him, he was admitted within the Haram-saráe,—the most private apartments.

One day, the Governor, who appears to have been, himself, under petticoat-government, had a dispute with his wife, which ended in her beating the ruler of the province with one of her slippers. Aiyúb happened to be present on that occasion ; and it tended, in no small degree, to add to the shame of his master, consequent on such an exposure. In order to comfort the Governor, if possible, and soothe his irritated feelings, Aiyúb remarked, that the women of all countries are naturally violent in temper, as well as tyrannical in disposition ; and, that in his own country they were more violent still, and had even been known to take the lives of their husbands. He therefore begged his master to take no further notice of his wife's behaviour, but to serve her after the same fashion in future, should she indulge in such fits of violence.

After this untoward occurrence, however, the Governor, fearing, no doubt, lest the matter might leak out, and that he should, consequently, become a laughing-stock amongst the people, took care to treat Aiyúb with great consideration, and never to be angry with him ; in fact, he let him have his own way entirely. He accordingly rose in his master's favour more than ever, particularly when, after inquiries, he found that Aiyúb had faithfully kept his secret.

Aiyúb at length became desirous of revisiting his home and friends ; and he was dismissed by the Governor of Kábul, with great honour, and loaded with presents, both in money and goods.

There being no mechanics or artizans in his own country, Aiyúb obtained permission from the Governor to take along with him from Kábul, a carpenter, a mason, a goldsmith, and a huntsman, together

with their families, who settled in Panj-korah. Their children followed the occupations of their fathers, and their descendants are now a considerable community, much respected in the country. These people are known as *fakírs*, a name also borne by the aboriginals of those parts, subject to the Yúsufzí Afghans.

Aiyúb was also attended by a number of other followers; and shortly after he reached home, Akhúnd Ilyás, his father, who was still alive, called his two sons into his presence and said unto them: "Out of the goods of this world, I have but two things to bequeath—my sword, and my *kachkol*" (a wooden bowl, or a gourd, in which a Darwesh receives alms): "take your choice of them." Ismáæíl, the elder brother, chose the *kachkol*, and Aiyúb the sword; and soon after, Akhúnd Ilyás, who had attained a great age, was gathered to his fathers. The children of Ismáæíl practise austerity; and are seekers after "the truth"* unto this day. They have the credit of being very learned. Aiyúb, who kept up a small number of soldiers, at length, obtained the title of Khán amongst his countrymen, and acquired considerable power, which increased from generation to generation, up to the time of Ḳásim Khán, father of Ghazan Khán, the present chief, whose rule extended over twelve thousand families of the Yúsufzí tribe.

Ḳásim Khán was the father of three sons—Azád, Ghazan, and Saæd-ullah—by three several Yúsufzí mothers, each of different clans. Azád, the eldest, by some untoward and unfortunate chance, became the slayer of his father; and some time subsequently, was, in like manner, slain by the youngest brother Saæd-ullah, in retaliation. These events occurred during the short and stormy reign of Sháh Mahmúd, (son of Tímúr Sháh, and consequently brother of the unfortunates, Sháh-i-Zamán and Sháh Shújáæ-ul-mulk), over the kingdom of Kábul, about the commencement of the present century.

Ghazan Khán was possessed of prudence and foresight in no small degree. He also had great wealth; and succeeded, by degrees, in gaining over the people to his side; and with the support and assistance of the late Sháh Ḳaṭor of Chitrál, or Lower Ḳásh-ḳár, he was acknowledged as the chief of his tribe, and ruler of the whole country of Panj-korah. The former friendship with the late, has been continued with the present, ruler of Chitrál—Tajammul Sháh, son of Sháh Ḳaṭor. Ghazan Khán, however, is at enmity with his younger

* Súfí-ism: see my "Selections from the Poetry of the Afgháns."

brother Saæd-ullah, who still continues at the head of some four thousand families. In the month of *Muharram*, in the year 1839, during our occupation of Afghánistán, some cause of dispute having arisen between them, they assembled their followers, and Ghazan Khán advanced against his brother; but the forces separated after a slight skirmish, in which from twenty to thirty of their people were killed and wounded.

The Panj-kórah chieftain was on friendly terms with the late Government of Lahore, during the time of Mahárájá Ranjít and Mahárájá Sher Singh; and they were in the frequent habit of sending presents to each other. In 1839, when it was the policy of the late Ranjít Singh to conciliate the Panj-korah chief, he sent him amongst other valuable presents, a fine elephant; in return for which Ghazan Khán sent the Mahárájá several fine Kohistání horses, and some other rarities, through Sulṭán Muhammad Khán, Bárakzí, who then held Pes'háwar of the Seikh ruler. During the time that the Neapolitan Avitabile was Governor of Pes'háwar for the Lahore Government, the chief of Panj-korah used to send him Chitrál slave-girls for his seraglio, besides male slaves, from the hill countries in his neighbourhood.

The regular paid troops of Ghazan Khán do not exceed two hundred men; but the *Ulúsí* or militia, or feudal retainers, amount to above ten thousand matchlock men; and they can be assembled on very short warning.

The chief subordinates of Ghazan Khán, or his ministers as they are termed, are, his son Ráhmat-ullah Khán, Suyed Mír Æalám, Ḳází Æabd-ur-Rahmán, of the Pá-índah Khel, and Æabd-ul-Ḳádir, who was formerly a slave, but has now become the Názir of income and expenditure.

It now remains to say a few words respecting the *Raæyats* or *Fakírs*, who are much more numerous than the Yúsufzís themselves. The greater part of them are the descendants of the aboriginal inhabitants whom the Afgháns found there when they conquered those parts at the end of the and beginning of the fifteenth century. They are also called Suwátís, and Degáns; and are, with the Shalmánís and other tribes, such as Hindkís, Awáns, Paránchahs and others, the original people of these parts. It is strange that those who say so much about Herodotus, and the Πάκτυες, who they contend are the

Afgháns, do not first provide for these people, who were in those countries when the Afgháns conquered them, and had been there centuries previously. As I said before, the greater part of those people, now to be found in the country held by the Yúsufzís, are called Suwatís, and are the descendants of those who remained in their country* after it was conquered; a goodly number of Degáns; some Hindkís, who have emigrated from the Panjáb; a few Kashmírís, and Hindús, who are attracted by the desire of gain; and some members of other Afghán tribes who have been obliged to fly from their own people, and who thereby have become degraded to the rank of the *Fakírs* and *Raæyats*. The *Fakírs* cannot hold land, and are not considered equal to their conquerors, who live like Spartans among Helots; and they are not allowed to be present at *Jirgahs* or assemblies of the clans. They are subject to the person on whose land they dwell, who is styled the *Kháwind* or master. They pay him a small tax and are obliged to work for him gratis, for certain periods, like the *villains* in our own country in days gone by. The master can beat, or even take the life of his *Raæyats* or *Fakírs*, without being questioned for it. But, at the same time, they are sure of every protection from their *Kháwind*, who would not, at the risk of his life, permit any other person to injure them. They may pursue any trade, work as labourers for their own advantage, or rent land as a *Bazgar*, and their master would have no demand upon them but for the fixed rent, a few taxes, and a certain share of their labour, as already mentioned; and, altogether, they are mildly treated. The *Kháwind* is deterred from ill-treating his *Fakírs* from the disgrace attached to oppression by the Yúsufzís, as well as the other Afghán tribes; and, moreover, a *Fakír* or *Raæyat*, if oppressed can remove to the lands of another Afghán, who would gladly receive, and give him protection, for there is a great competition for them. The number of clans and independent communities among the Afgháns are a great protection to these people; and should one of them receive any deadly injury requiring retaliation, he could revenge himself on his oppressor, and afterwards fly to another clan, or independent community, and demand protection, which would always be freely granted.

The *Kháwind* is not permitted to extort money from his *Fakír;* but he is allowed to levy a few fines, such as, on the settlement of a

* I shall return to the subject of the Suwátís in a future paper.

Fakír upon his land, on a marriage among them, and on account of crimes, both of minor and more serious consequence. The amount of these fines are fixed by custom, and any attempt to extort more would be considered gross oppression. They are not forbidden to carry arms, but rarely do so.

Most of these people work as husbandmen, but some feed herds of cattle on the mountains, and some amass money by the profits of their labours as artizans; for an Afghán considers any handicraft trade a disgrace.

Tálásh.

Before bringing this paper to a close, I must give some account of the small district of Tálásh, which is also held by the Yúsufzís, and is considered as a part of Panj-korah, of which it forms the southern portion. It consists of the oblong strip of land through which the river of Panj-korah flows, after its junction with the river of Báj-áwṛṛ, as far as its junction with the Suwát. It is consequently bounded on the west by Báj-áwṛṛ, and to the south by the hills held by the Utmán Khel, an independent tribe of Afgháns. Tálásh is well watered, and is, therefore, exceedingly fruitful, well cultivated, and very populous for its extent. It exports a good deal of grain to Pes'háwar, the main road between which, and Panj-korah, Badakhshán, and the two Ḳásh-ḳárs, lies through it.

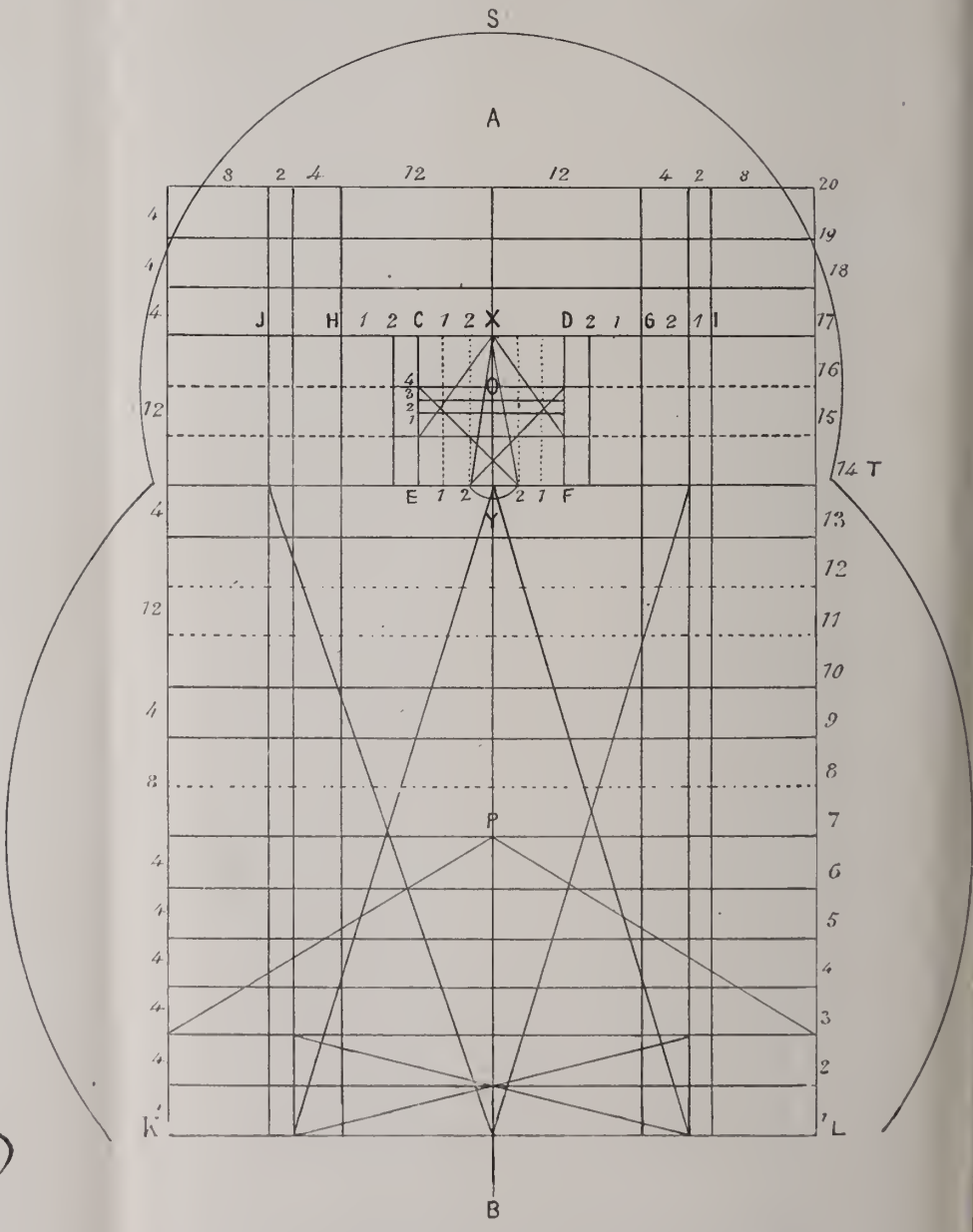
The chief towns, or large villages of Tálásh, with the names of the clans to which their inhabitants belong, and their head-men, are as follow.

Village or Town.	*Clan.*	*Chief or Head-man.*
Bágh,	Sháhí Khel,	Ghulám Sháh.
Shamsí Khán,	„ „	Afzal Khán.
Kambaṭṭa'í,	„ „	„ „
Amlúk Darah,	Raæyats or Fakírs,	
Mucho,	Núrah Khel,	Ghazan Khán.
Bájorú,	Sháhí Khel and Núrah Khel,	Sher Sháh, and Afzal Khán.

The village of Kamán-gar, the people of which are bow-makers by trade—hence the name of their village—is, sometimes, considered as belonging to the Tálásh district, but it is, properly speaking, in the U-sherí Darah of Panj-korah. It has been, therefore, mentioned among the villages of the Bar (upper) U-sherí Darah, already noticed.

Plate I.

OUTLINE PREPARED for DRAWING FIGURE.



LITHOG BY H.M. SMITH SURV GENL'S OFFICE, CALCUTTA, APRIL, 1901.

There are numerous small hamlets in Tálásh, inhabited by people of the Núrah Khel, who constitute the most considerable number of its inhabitants.

The district of Tálásh is very rich in monuments of antiquity, consisting of domes or cupolas, on the face of one of which, I am informed, there are several tablets, half a yard long, and inscribed in an unknown character, said to be Yúnání or Greek, but probably Páli. If Greek, the examination of these ancient monuments would, no doubt, throw an extensive, and clearer, light on the proceedings of the Greeks in these quarters, which are so mixed up with nonsensical fables, as to furnish ready tools in the hands of those ignorant of the antecedents of the Afghán nation, for working out their own theories.

On the System employed in Outlining the Figures of Deities and other Religious Drawings, as practised in Ladak, Zaskar, &c.

(Communicated by Capt. H. H. Godwin Austen, F. R. G. S., 2nd Assist. G. T. Survey of India.)

As I believe no notice has hitherto been taken of the above subject, and as I only accidentally discovered its existence when in Zaskar last summer (1862) I have been led to write a few lines regarding it; trusting that they may prove of interest to some, and add to our knowledge of the history and customs connected with the ancient religion of the Buddhists. I do not claim any new discovery in this paper, as others may have observed the method of drawing long since. It has a resemblance to that adopted by ourselves in teaching Figure Drawing, and it was when shewing this to a native draftsman of Shilar, a village near Padum, that he produced a sketch of a figure outlined as shewn in the accompanying plates, as also that of the "Churtun" or "Offertory Temple."

The system of the first shews a great amount of ingenuity in its details, but is far more intricate than our simple way, where more is left to the talent of the artist.

The Deity thus given as a specimen is Sakya Thubba, or Bhuddha.

The first line laid down is the perpendicular AB, to which a line (No. 20) is drawn at right angles, and on either side of AB on this line are laid off from a scale proportions equal to 12, 4, 2, 8, and lines parallel to AB drawn through these points. On the two outer lines,

commencing at the 20th, parts equal to 4, 4, 4, 12, 4, 12, 4, 8, 4, 4, 4, 4, 4, 4, are laid off in the above succession, and the points connected by lines which will be all parallel to the 1st (No. 20). The square for the face is similarly formed by laying off from the same scale parts 6 and 2 on either side of X, the outer part 2 delineating the breadth of ears, and a part equal to 2 laid off on either side of Y defines that of the nose and mouth by lines drawn to X from those points.

The mouth is placed half-way between 14 and 15, and its width, as well as that of the nose, is defined by the lines XE_2 and XF_2. The arc of a circle described with a radius from centre of mouth to E_2 or F_2 defines the chin. The part between the lines 15 and 16 within the square DCEF is divided into four parts by horizontal lines, the lowest part (1) gives marking of nostrils, the third defines the eyes, the outer and inner corners of which are determined by lines drawn as in the accompanying plan.

The eye-brows lie on 16, as also the top of the ear, the long lobe of which reaches to 14 on a level with the chin. A curve from H_2 G_2 rising to 18 defines the crown of the head; the circular glory RST round which is described from O as a centre, between the eye-brows. A second glory (as it may be termed,) RK and LT is described round the body from the point P on line 7. These glories are in the paintings coloured differently. Lines from the intersection of I and 14, J and 14 to B form a triangle, and on 4, 5, 6 give the sides of the alms dish, resting on the palm of the left hand. Another triangle being made with its angles at Y and the points on the line KL where the perpendiculars through J and I intersect it, the nipples of the breast lie on its two sides where they are intersected by line 10. A third triangle, apex at AB_{17} to L_3 K_3 gives the slope of the thighs in a sitting posture, while again lines I_3 to J on KL, and J_3 to I on KL give direction of shin and instep to points of the great toes. On reference to the plates it will be seen that many other parts of the body are made to fall on the intersections of the different lines.

These figures are seen in every monastery painted on both canvass and silk, the latter being generally brought from Llassa; they are often remarkable both for their richness of colouring and sharpness of outline. Many similar figures scratched on flat stones are put as offerings on the Mani Walls and are to be seen all over the country, more especially in Zaskar.

Facsimile of a drawing by Native Artist.

SAKYA THUBBA.

or

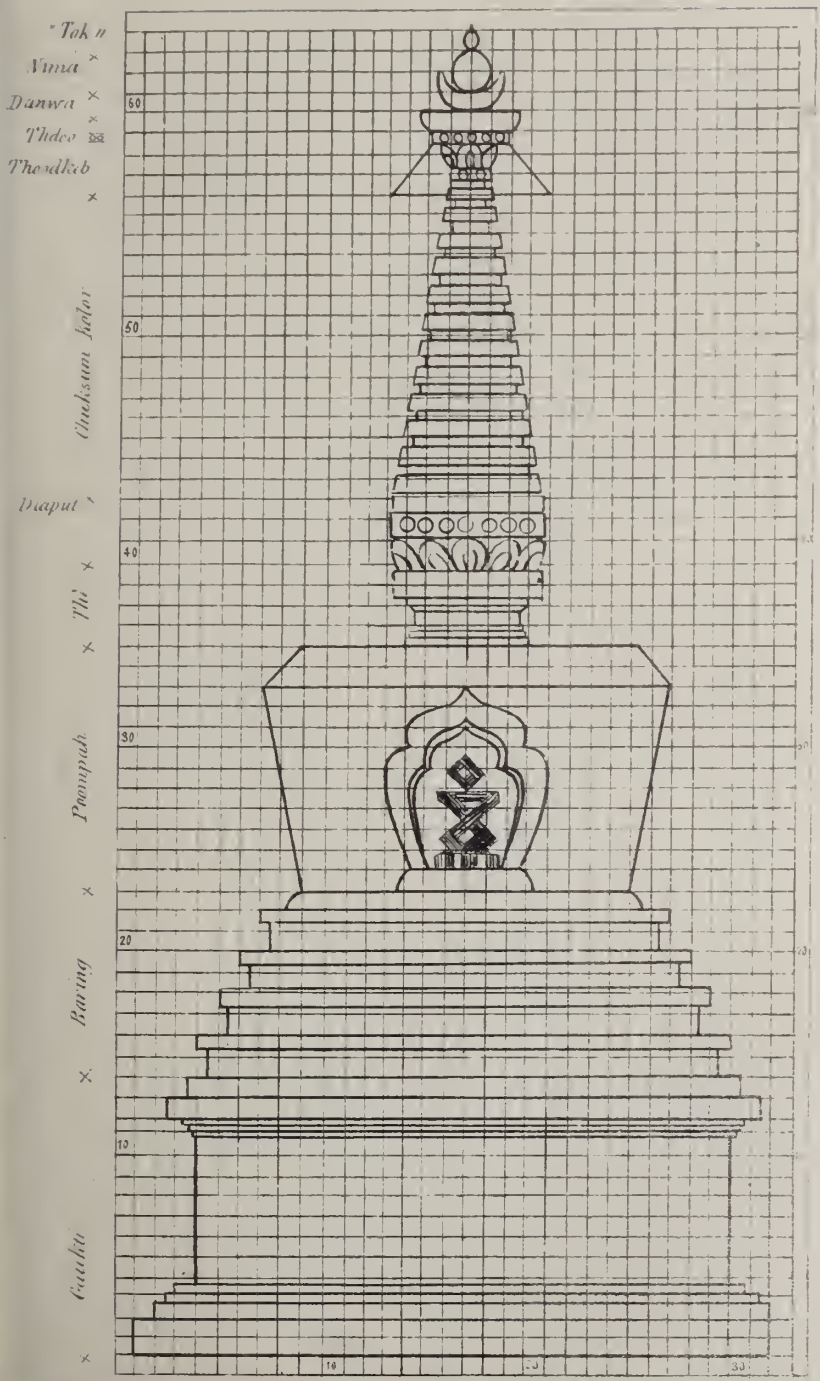
BHUDDHA.

PLAN

from native drawing of

CHOORTUN,

from ZASKAR LADAKH.



Lith by H M. Smith. Surv Genls Office [illegible] 186-

Plate. IV.

OLD STONE FIGURES, DÈKOO near PADUM

ZASKAR

LITHOG BY H M. SMITH, SURV GENL'S OFFICE. CALCUTTA, APRIL, 1864.

The similarity of their proportions and cast of countenances is striking, and must be attributable to the above described mechanical mode of laying out the figure, which may probably be used all over Thibet.

I was unable to obtain copies of their many other deities, such as Chamba, Chandazik Grolma, (female), Chooshong, &c., but I imagine there is a like rule for drawing each; I shall try and obtain further information regarding them next season.

The drawing of the Chúrtún (Pl. III.) which I send is also taken from a native plan on which the measurements are given. I have entered the names of the different parts, which I find are not given in Cunningham's work on Ladak. The part called 'Chuksum' or 'Chugsum Kolor' always has, as its name implies, 13 discs, Chugsum meaning thirteen;—there is perhaps some reason for it, for when I shewed Cunningham's XXVIIIth Plate of a churtun to the Lhamas, they at once counted the number of discs and informed me that three had been left out. The letter in the centre is the syllable "Hun" which is brought into all the mantras repeated by the people.

These Churtuns are picturesque buildings, and reminded me much of the Pagodas in Burmah on a small scale, for in Ladak they are rarely over 40 feet in height, and are generally very much smaller. The sides of the lower portion are often adorned by cleverly modelled work in relief, representing some imaginary animal, between a man and bird, or a sort of griffin, with a border of scroll-work. The upper portion, "Thoodkeb," in the better kind of churtun is made of metal, and I was told that in former times gilt churtuns were to be met with in the neighbourhood of the large monasteries or Gonpahs. The churtun close under the palace at Leh is a good specimen and its name "Stunzin Num-gyal" is well known all over Ladak, so much so that a song has been written about it. At the monastery of Himis there is also a very pretty model, coloured white and ornamented with good gilt scroll-work, and inlaid with rough turquoises, carbuncles, agates, &c. There are a few more good ones in the same neighbourhood, but during the Dogra conquest of the country, many of the best religious buildings were destroyed, or more or less injured.

When surveying in the neighbourhood of Padum in Zaskar, I discovered in a field near the monastery of Sèni, several stone figures as shewn in the accompanying rough sketch (Pl. IV.) They had been set

up on a slight curve, and the highest standing in the centre was about 7½ ft. high. Several had evidently disappeared, and with the exception of the two given on a larger scale (Pl. V.) they were very much worn and the features quite obliterated. I could obtain no information at the time as to what they were called. The Lhama with me from the monastery close by, called them Dekoo, said they were very very old and that no one knew who had made them. The head-dress was peculiar, nor have I seen it worn by any in that country at the present day. The smaller figure holds the Dorgè or Sceptre, which points out that they are of Buddhist origin. They are probably very early, dating from when that religion was first introduced into Zaskar; the rudeness and bad proportion of the figures display the handiwork of a people far behind the present race, who to all their drawings and modellings give a finish and exactness not usual even in the plains of India. I could discover no signs whatever of any inscription having been cut on either of the images,—the very worn state of the stone must have obliterated it, had there ever been any. Their age I must leave to be settled by those who are versed in the history of the early Bhuddists, and who may have noticed the curious ends projecting on either side of the head in other sculptures of the same period.

Note on a tank Section at Sealdah, Calcutta.—By H. F. Blanford, *A. R. S. M., F. G. S.*

I am indebted to Mr. H. Leonard the Government Superintending Engineer, and a member of this Society, for drawing my attention to a section exposed in the large tank now in course of excavation at Sealdah, and which seems to me of sufficient interest to be recorded in the pages of the Society's Journal. The tank is situated to the East of the Circular Road, between the termini of the Eastern Bengal and Mutlah Railways, and has been excavated to a depth of 30 feet below the normal surface of the ground, which is at that spot 14½ feet above the level of the low spring tides in the neighbouring canal, and 17 feet above that of the lowest spring tides of the dry season in the Hoogly river.* The bottom of the tank is therefore 15½ feet below the former, and 13 feet below the latter level,

* These levels are quoted from those given in the Report of the Municipal Engineer on the Main Drainage of Calcutta.

Plate V

STONE FIGURES

DÈKOO, near PADUM.

ZASKAR.

3' 5" High

7 foot 6 in Height

LITHOG BY H.M. SMITH SURV GEN'L'S OFFICE CALCUTTA APRIL 1864

a point of some interest with reference to the evidence of former land surfaces which the section has disclosed.

Sealdah, Calcutta.

Fig. 1.

The section is illustrated in the accompanying wood cut, Fig. 1. The upper 3 feet (more or less) consists of vegetable mould and made earth, and rests on the irregular surface of bed *a*, the upper part of which consists of fine loam, much like the soil of paddy fields, but variable in different parts of the excavation. Thus in some places it consists of fine sandy silt, minutely laminated, and crumbling under the slightest pressure: elsewhere it is more argillaceous, and in general it is very full of fragmentary vegetable remains, too imperfect however to be recognised specifically. This bed becomes more argillaceous towards the lower part and near the base is a tolerably tenacious clay. Its total thickness averages 17 feet, the bottom being at 20 feet below the actual surface.

Bed *b*, is 1 foot in thickness, and consists of an impure peat, too earthy to burn, when dry. In it several stumps of Sundri trees are standing, the roots penetrating the bed immediately below. This bed is continuous all round the tank, and appears to extend every-

where beneath Calcutta, and also on the Howrah side of the river,* although its depth is not everywhere uniform. Thus it is exposed in the bed of the river below Garden Reach, (at very low tides,) and also in the river bank at the Botanic Gardens. At these places its absolute depth is about 6 feet less than at Sealdah. In three borings in Fort William, on the other hand, it was met with at a depth of 51 feet, which, allowing for a difference of 3 feet between the actual surface levels of the Fort and Sealdah, would indicate a level 28 feet lower than that at Sealdah, and not less than 34 feet lower than at the Botanic Gardens. The correspondence of this part of the two sections is however such, that notwithstanding this great difference in level I cannot but think that the bed is either continuous or approximately so.

The peat bed rests upon a thick deposit of clay, *c*, sandy in the upper part, but passing downwards into a stiff blue clunch, which contains the stools of Sundri trees in situ at various levels, at least as far down as 30 feet from the surface, or 10 feet below the peat. Two very perfect specimens of these projected from the bottom of the tank at the time of my visit. Their roots penetrated the clay beneath, and I saw in the sides of a little well which had been sunk 4 feet lower, that the clay beneath was pierced in every direction by the roots of similar trees. These trees must therefore have grown at a level actually $15\frac{1}{2}$ feet below the lowest water level of the canal, and 13 feet below that of the Hoogly.

No deeper excavation was open at the time of my visit, but I was informed by Mr. Leonard, that a deeper well sunk in the bed of the tank and subsequently filled up, had shewn that the clay bed extended to a depth of 15 feet below the tank bottom, and rested on a stratum of very loose black sand, fetid from the amount of vegetable matter which it contained. According to this, the total thickness of the bed is 25 feet below the peat, which corresponds very closely to that of the fort section, where the peat bed rests upon blue clay with *wood* and kunkur, and yellow clay, of a total thickness of 21 to 24 feet; and this on a stratum of wet reddish sand.

The point of chief interest in the Sealdah section is the occurrence of tree stumps in situ at the depth of 30 feet, and the evidence

* I am informed by Dr. Anderson, that the natives have a tradition to the effect that the Hooghly formerly passed from Cossipore some miles to the West of Howrah, its present course being that of an old native canal, into which the river burst its way about 150 years since, deserting its old channel. Thus the beds on the two banks of the actual river were formerly continuous.

afforded thereby of a general depression of the delta.* The trees in question, specimens of which I submitted to Dr. Anderson, were pronounced by him to be Sundri, a species, the range of which, as regards level, is restricted to from 2 to about 10 feet below high water mark. It grows only on mud, or where the surface is too frequently flooded to allow of the growth of grass, but at the same time it requires that its roots be exposed to the air for at least several hours of each tide. It is evident therefore that the trees at Sealdah could not have grown at the level at which they are now found, but that unless low water level in the Hoogly be 18 or 20 feet above that of the outer Soonderbuns, (where the Sundri now grows,) there must have been a depression of the land surface to a depth of several feet since they grew. I have not been able to obtain any data showing the relative low-water levels of the Hoogly and the outer Soonderbuns,† but Mr. Leonard informs me that there is but very little difference between the levels of the Hoogly and the Mutlah at Canning town, and this is not many miles above the actual geographical range of the Sundri, while the channel is so broad and deep as to forbid the assumption that there should be any material elevation of the low tide level of the former.

I think therefore we may safely infer, remembering the range of the Sundri, and that it never grows to within 6 or 8 feet of the lowest tide levels, that there must have been a depression of land to not less than 18 or 20 feet, since the trees grew, the stumps of which are now found at the bottom of the Sealdah tank.

If at the Fort, the wood found above and below the peat bed be, in situ, as I think most probable, there must have been a depression at this spot to a depth of not less than 46 to 48 feet; but whether the two land surfaces thus indicated were contemporaneous, and the relative depression, consequently, unequal to the extent indicated by these figures, the evidence before us, is I think, insufficient to establish.

* Or rather, additional evidence, for several proofs of subsidence were afforded by the section of the Fort boring.

† Since the above paper was read before the Society, I have obtained from Col. Gastrell and subsequently from Major Walker's Report of the operations of the G. T. Survey the accurate height of the sea level at Kidjiri with reference to Calcutta.

The mean height of sea level above the Calcutta datum line of Kydd's dock sill is 9,053 feet: the mean height of neap low tide levels above the same datum line, 5,51 feet. The height of the ground surface at Sealdah above the datum line is 22 feet, and therefore 16,49 feet above low tide level at Kidjiri.

Hence the tree stems at the bottom of the Sealdah tank are (30—16,49)= 13,51 feet below the mean level of neap low tides.

Kulnah, Jessore.

Fig. 2.

The depression was I think very extensive, if unequal; thus I am informed by Mr. Leonard that the peat bed occurs at a depth of 20 feet at Canning town on the Mutlah, the actual land level of which place is certainly several feet below that of Sealdah, and a section of a tank near Khulnah in Jessore, for which I am indebted to the kindness of Col. Gastrell, shews a peat bed at a depth of 16 ft. 6 ins. to 20 feet, and trunks of trees with roots attached at various levels from 18 to 24 feet. This very interesting section is shewn in the accompanying wood cut, Fig. 2.

From these facts, I infer an average depression of the Gangetic delta of 18 or 20 feet since the land surface existed, which is marked by the Sundri trees in situ. It is noteworthy that the trees, in all the sections I am acquainted with, are restricted to a vertical thickness of from 8 to 10 feet, and that the strata above, though frequently full of fragmentary plant remains and sometimes fresh water shells, shew no indications of former land surfaces. This indicates not only the uniformity of the depression, but also that it was everywhere more rapid than would be compensated for by the deposition of sediment.

Memorandum on the life-sized Statues lately exhumed inside the Palace of Delhi.—By C. Campbell, *Esq., C. E.*

Delhi, June 5th, 1863.

1. We have now collected together and sorted all the fragments, and find that they comprise, apparently, portions of no less than 3 groups, all imperfect, as follows.

Elephants	Feet,	11	fragments.
„	Legs,	18	Ditto.
„	Trunk,	21	Ditto.
„	Head,	4	Ditto.
„ „	Body and Howdah,	63	Ditto.

And in addition several hundred fragments that cannot now be identified.

Of human figures, there are 3 portions of a body, 4 fragments of arms, and one complete head.

These are in a very rude style of art; one of the hands is comparatively perfect and has the thumb on the exterior, *i. e.* where the little finger ought to be, and vice versâ. An attempt has been made at some former period to repair these groups; this is evident from many of the fractures having been cut square, and new pieces of stone fitted in, whilst from the fact of these new pieces having remained unearved, it is clear that the attempt was soon abandoned.

2. There can be no doubt that these are the identical figures seen and described by Bernier, who visited Delhi at the commencement of of Aurungzebe's reign. His description is as follows.

"The entrance of the fortress (palace) presents nothing remarkable besides two large elephants of stone, placed at either side of one of the principal gates: on one of the elephants is seated the statue of Jemel, the renowned Rajah of Chittore; on the other is the statue of Polta his brother. These are the brave heroes, who, with their still braver mother, immortalized their names by the extraordinary resistance which they opposed to the celebrated Akbar; who defended the towers besieged by that great Emperor with unshaken resolution; and who, at length reduced to extremity, devoted themselves to their country, and chose rather to perish with their mother in sallies

against the enemy, than submit to an insolent invader. It is owing to this extraordinary devotion on their part, that their enemies have thought them deserving of the statues here erected to their memory. These two large elephants, mounted by the two heroes, have an air of grandeur, and inspire me with an awe and respect which I cannot describe."

Of their removal from this position nothing is known; from the state of the remains it was evidently attended with violence, and is probably therefore due to the iconoclastic tendencies shewn by Aurungzebe, in the latter part of his life. The attempt at restoration would be made during the reign of one of his successors, when it may have been proposed to complete the group, by the addition of a third elephant, bearing the effigy of the heroic mother of the two Hindoo princes.

On the abandonment of the design, the fragments would be left to lie neglected and uncared for; many would be stolen or employed in the decoration of new buildings, until what was left was buried in the ruins of the house where they lay, and from the debris of which they have just been recovered.

3. The question now arises; are the statues lately exhumed the same as those described by General Cunningham as existing at Gwalior? That they are independent works by Mahommadan artists is very unlikely, although it is of course *possible* that they may have been made by order of the Emperor Shah Jehan when the new city and palace were designed by him; but why, in this case, should the effigies of princes of a hostile race and faith have been selected as subjects? and how account for the absence of any mention of them in the records that have descended to us? It is much more probable that they were the work of Hindoo artists, brought from a conquered city for the adornment of the new palace of Shah Jehan; if so, did they come from Chittore? I think not, for, had they existed there for any time, they must have been as well known as the Gwalior ones, which does not seem to have been the case.

4. It must be borne in mind that they are not *statuary portraits* like those executed by European artists, but mere effigies like "Gog and Magog" in the London Guildhall, and they probably bore as much resemblance to Jemel and Polta as to Maun Sing, or any other Hindoo chief.—Bernier's statement is no proof of their being actually

meant as likenesses of the two brothers, and merely shows that at the time of his visit, they were popularly known by general repute as representing the two Chittore princes, but leaves untouched the assumption that they may have been in existence for centuries, may have been known at Gwalior as memorials of the popular hero there, —Raja Maun Sing—and on their removal to Delhi, may have been re-named by Shah Jehan, in memory of some incident in his early youth, connected with the fall of Chittore.

5. In his memorandum, General Cunningham has shewn that the art of sculpture had long flourished at Gwalior, and that more than one statue of a life-size existed there. Of the most famous of these, he has traced the history down to the reign of Shah Jehan, and proves that it had disappeared from Gwalior in the next reign. Its disappearance he connects with the iconoclasm of Aurungzebe, but if that Emperor destroyed it at *Gwalior*, how came the fragments to find their way to *Delhi?* Their removal must have occurred during the troubled reigns of the successors of Aurungzebe, who had but little leisure or inclination for adorning their capital with expensive restorations of ruined statues, brought from so great a distance.

6. The history of the Gwalior statues then, ends abruptly in the latter part of Shah Jehan's reign; that of the Delhi ones commences as abruptly about the same time: what is more probable than that the two groups are identical, and that they were removed from Gwalior by Shah Jehan, who would gladly avail himself of this opportunity of transferring to his new palace and capital, works of art so celebrated? the only ones of their kind, apparently, that existed in his dominions, and the removal of which, in their uninjured state, would be a comparatively easy task; how the change of nomenclature may have arisen, I have already pointed out.

Memoranda relative to three Andamanese in the charge of Major Tickell, when Deputy Commissioner of Amherst, Tenasserim, in 1861.—*By Col.* S. R. Tickell.

In May, 1861, three Andamanese, who had been captured near Port Blair some time previously, and sent over to Rangoon by the Superintendent, Colonel (then Major) Haughton, for educational purposes, were placed in my charge by Colonel Phayre, at that time Commissioner of Pegu.

Hitherto they had been attended to by one of the men of the Naval Brigade at Port Blair, to whom they seemed much attached; but they were parted from their keeper at Rangoon, and sent over to Maulmein under the care of one of the Officers of the Steamer, who forwarded them to me on their arrival.

They were dressed, when I first saw them, in light sailor's costume, slops and jumpers of white duck, and straw hats, bound with broad black ribbon, bearing the ship's name to which their former guardian had belonged. They could not speak a single word intelligible to a by-stander, and looked so frightened and miserable amongst new faces, that after many attempts at coaxing and cheering them up, I considered the best plan to take them back to the steamer, and re-ship them for Rangoon. One of the small hack palankeen carriages that ply in Maulmein was therefore procured, into which they got with alacrity, fancying I suppose they were to be immediately driven to Port Blair, and off they started for the steamer But I had hardly re-entered the house and commenced a letter to Colonel Phayre about them, when back they came, walking hand-in-hand with a Burman, amid a crowd of people, and appearing as excited and joyful as they were before dejected. On enquiring the reason of their return, I was told that as the carriage was proceeding up the road, they had espied a Burman whom they had known at Port Blair, and overjoyed at the sight of a familiar face, one of them had opened the door, and before the vehicle could be stopped, got out, (thereby receiving a rough fall on the ground,) and embraced his old friend, whom they all three accompanied back to my house, in great glee, laughing, patting him on the breast, and putting their arms round his neck. That same evening I engaged his services to take the immediate charge of the

Andamanese, and for the rest of their stay at Maulmein, they lived under his roof. The arrangement was particularly convenient, as the Burman "Moung Shway Hman" speaks English, which it was proposed to teach the Andamanese, and is a man of steady habits and good character.

The photograph which accompanied Colonel Fytche's paper in the J. A. S. No III 1862 will give a better idea of the physiognomy of these people than the most laboured description. Mr. Blyth, Curator of the Asiatic Society's Museum, and a remarkably accurate observer, was at Maulmein for some time with these Andamanese, and pointed out the leading peculiarities of their configuration, and as his remarks have been embodied in the report, which Colonel Fytche, Commissioner of Tenasserim, sent to the Journal of the Asiatic Society, it would be superfluous to dwell on this part of the subject; but I would take this opportunity of observing that I cannot agree with an opinion which has been more than once published, that the Andamanese have no affinity to the African race. They appear to me on the contrary, to be very closely allied. The small ear and the less gross lips are not, in my opinion, sufficient data on which to found a fifth, to the long established four grand divisions of mankind. From the few remarks to be gathered on the subject, in Bowring's account of the Philippines, it seems probable that the people of the interior, called Nigrettoes, who have so long withstood all attempts at civilization and communication with the Europeans and Eurasians of the coast, are the same race as the Andamanese. And further South, the ferocious savages of the interior of Sumatra, from whose hands Madame Pfieffer had so providential an escape, are also probably the same, but she has not given a sufficiently detailed description of them to allow of certainty on this point. How this so-called Papuan tribe came to be so separated from the strongly defined geographical limits of the African race, and spread throughout the Eastern Archipelago, will perhaps ever remain a matter of conjecture: but their distribution throughout that space, from the Andamans to Sumatra, (if not further,) may be accounted for by the propinquity of those islands to each other.

Our three friends were named at Port Blair, Crusoe, Jumbo, and Friday, and labelled accordingly; each name being stamped on a tin medal worn round its owner's neck. The necessity for such an apparently whimsical arrangement may be understood, when it is

explained that this singular people have ' (as far as close observation allowed us to observe)' *no proper names* for each other, and readily learnt to adopt those by which they were ticketed.

On their arrival at Maulmein all three had bad coughs, and Crusoe and Jumbo evident phthisical symptoms. Crusoe's health improved after some time: but Jumbo gradually grew worse, and his malady was greatly increased from exposure during inclement weather, in an attempt to escape, which he and his companions made one stormy night. They made their way in a native canoe towards the mouth of the Maulmein river: but were glad, in three or four days, to return under the guidance of the village police to Maulmein. Jumbo never rallied from the effects of this excursion, and in spite of all that medical assistance could do, died in the jail hospital on the 12th June, nearly one month after his arrival. His comrades repaired to the hospital and showed signs of genuine grief at his death. They also performed some singular ceremonies over the body, which I wished to have witnessed repeated the next morning: but owing to some rather precipitate measures, taken without the slightest reference to myself, to prepare a skeleton of the deceased for presentation to the Asiatic Society's Museum, I was unable to do so.

Of the three, Crusoe, the oldest, (apparently about 35 years of age,) was the only one who showed any moroseness of disposition. Jumbo was of a cheerful gentle nature, and Friday the youngest, whose age might be 18 to 20, was at times very lively, good tempered, and fond of his immediate overseer Shway Hman, and of myself. They came frequently to my house, and were allowed free access to every part of Maulmein. Their curiosity at every new object was great, but evanescent. They soon tired of everything, and when left alone, relapsed into dejection, making unintelligible speeches with lamentable signs, evidently about a return to their own country.

Some time after Jumbo's death, Crusoe showed consumptive symptoms, to a degree which made me despair of ever getting him alive back amongst his countrymen: but he fortunately rallied during the heavy rains, and left Maulmein for Port Blair comparatively well. Friday, after getting over a cough that at first troubled him, continued in robust health to the time of his departure. It is an extraordinary fact that savages, accustomed from birth to go naked, or nearly so, contract pulmonary diseases if forced to wear clothing. This has

been remarked amongst the aborigines of Australia and the South Sea islands. Crusoe's height is 5′ 1¼″ That of Friday 4′ 9½″ The former is of rather a spare frame, which may be partly attributed to pneumonia. Friday is square, muscular, and deep chested. Both have small hands and feet; which, with their foreheads, are cicatrised all over with scratches inflicted on themselves as a cure for all manner of pains and aches; and the feet of both had a constant ademalous appearance, with small feeble toes wide apart, as if they were never much used to pedestrian exercise. Both of them occasionally complained of headache, and would then smell with avidity at salts, stuff their nostrils with leaves freshly plucked, or as a last resource, score their foreheads with a knife or a piece of broken glass, till they bled pretty freely. They were much averse to taking our medicines, and Crusoe on one occasion threatened his Burman keeper with a knife, for trying to administer some nauseous dose. Neither of them would take to learning English. They repeated like parrots the words we endeavoured to make them understand, and at last grew so averse to their schooling, that at any attempt to commence it, they would feign fatigue or sickness as readily as any truant schoolboy. They were in fact *too old* to learn, and although Friday was smart and intelligent, he showed it more by his extraordinary powers of mimicry than by learning anything useful. This persistence in imitating every gesture and every sound of the voice, made it particularly difficult to obtain from him the Andamanese name of even any visible object. Those entered in the annexed vocabulary, have been elicited with no small labour and patience, by myself and their keeper Shway Hman. I succeeded in obtaining the names of a variety of fishes, (common to the bay of Bengal,) by showing coloured drawings of them: but of quadrupeds they appeared perfectly ignorant, the only mammal they seemed to know was a pig, "Rogo," and this name they applied indifferently to cattle, ponies, elephants, deer, and monkeys. They appeared also to have very few names for birds, and when shewn the pictures of some which I knew to be found in the Andamans, merely attempted to imitate the notes of any species they might have had in their minds at the time.

To judge by Crusoe and Friday, the Andamanese are not a timid race. They mingled unconcernedly amongst crowds of people, and at first used to help themselves to any thing they took a fancy to, off

the stalls in the bazar. When teazed with the numbers looking at them, Crusoe would stride towards the throng, waving them off and calling out in Burmese "â-loong thwa" (go! all!) They took great pleasure in the pways or Burmese dances, and learnt to imitate the performances with marvellous exactness, to the great delight of the Burmese, who crowded to see them. Sometimes they exhibited their own national dance, which appears to consist solely in lifting their clenched fists above the head, and kicking the ground rapidly and forcibly with their heels. It has a peculiarly savage effect; but having apparently excited great mirth amongst the spectators, Crusoe and Friday took offence at such notice, and latterly never repeated their exhibitions. With the little hack carriages which ply in Maulmein they soon became familiar, and were treated to rides almost every day: and they would walk up to a pony, and hug it, though once or twice narrowly escaping a bite. When first taken to see some steam saw-mills where elephants were employed stacking timber, they showed no alarm at the huge animals, although the first they had ever seen, and Friday was about to walk up to and pat a large tusker, when the bystanders restrained him. Of fire arms or of anything explosive however, they seem to have some dread. Latterly they learnt very well the use of money, and any cash in their possession was usually spent in the purchase of pork or other meat at the Chinamen's shops. Fruit (except plantains) or sweets, they cared little for; but were very fond of tea prepared in the English way. Fish they were indifferent to, also to rice: but they ate a great deal of meat and yams, making three hearty meals a day. I generally gave them a fowl when they visited me, and for which they took care to ask by calling out "kookroo koo" and imitating the cries of poultry. They killed the fowl by pressing the chest and neck, and swinging it round and round. They would then pluck, clean, and boil it, their usual mode of cooking anything. Occasionally they broiled meat on the fire: but never eat animal substance raw. But they never set about cooking for themselves if they could induce their keeper's wife "Ma Shway" to save them the trouble. At my house they were often allowed to sit at the breakfast table, where they behaved with decorum, but quite at their ease: lolling back in their chairs, and pointing towards anything they wanted. They learnt to use a spoon, knife, and fork readily.

In their visits to me I used to remark that Crusoe on first arriving would shout out something in his loud harsh voice. It occurred so often, that I am induced to think the act analogous to a custom in some parts of Ireland amongst the peasantry, where a man on entering a cottage calls out "Good luck to all here"—I have never been able to ascertain what it was that Crusoe said on these occasions.

As I before remarked, these people appeared to have no proper names. When one called the other, it was with a shout of "Hy" much as is used in hailing a cabstand. But occasionally they named each other Crusoe and Friday, and invariably spoke of their country as Blair. They learnt my name, but usually addressed me as "Ma-ey, (Oh man); nevertheless it is difficult to conceive how any community can carry on intercourse without the aid of proper names both to persons and places, and I am not aware that such a strange deficiency has been observed in the language of any other tribe, however savage.

Although most pertinacious beggars, and glad to take anything offered them, their cupidity was chiefly shown for iron, of which they took with them from Maulmein, a large quantity in the shape of knives, forks, dás, or Burmese choppers, nails, scissors, hammers, and needles. They frequently sat for hours watching the blacksmiths at work, and also learnt to ply the needle with some skill and to use scissors. As they acquired a strong liking for clothing, it is possible they will not willingly return to their old habits of nudity, and so will find their sartorial accomplishments of advantage. Although I procured them a quantity of the coarse kind of tackle used for sea-angling, they took no interest in its use; which is the more singular, as in their native state they are most expert fishermen, especially in spearing fish.

Friday procured a bow and some arrows, with which I met him one day armed, marching up the street at the head of a posse of idle boys: but I never had an opportunity of witnessing his skill in archery. He had seen guns fired but never attempted using one himself. They were both expert swimmers, their mode of progression being with the arms and legs alternately, the former under water: not striking out like an Englishman, nor throwing one arm out after another like the generality of continental Europeans. They could manage a Burmese canoe with ease: but never occupied themselves with paddling about for amusement. They evinced great pleasure in making short trips into the interior with their conductor, visiting

the numerous orchards and villages in the vicinity of Maulmein. And as the arrival of the mail steamer invariably renewed their hankering after their own country, I used latterly to send them away during the stay of the vessel in the port, and having found out their name for the moon "Chookleyro" I was able generally to soothe them when much dejected, by repeating the word, and "Blair kadó" (go to Blair), and holding up as many fingers as I supposed might mark the number of months they were likely to stay.

They were fond of tobacco, and of such snuff as was procurable in the bazar, but owing to the state of Crusoe's lungs, smoking was not allowed to him latterly. They seemed to take pleasure in having the scanty frizzly wool of their heads shaved off, an operation which was several times performed on them. They were very docile in learning habits of cleanliness: bathing every day, using soap, and getting their clothes washed, cleaning their plates after meals, sweeping the floor, &c. To "Ngapee," a strong smelling condiment made of dried and powdered fish, in universal use amongst the Burmans, they could never be reconciled. Besides the phlebotomising operation already described, they used, when in pain, and also when feeling chilly, to apply heated stones to the afflicted part; and on such occasions would huddle together close to the fire. They showed great pleasure at the sight of English children, and would kiss and fondle them if the little folks permitted it. To Burmese children also they evinced great partiality, and frequently caressed Shway Hman's daughter, a child of 5 years of age. Their grief at the death of their comrade Jumbo, was great, but not lasting.

When the time came for these poor creatures to return to their own country, and it was explained to them they were to go, which was chiefly done by patting them on the back with a smiling countenance, and repeating the words "Blair ka-do," without the ominous fingers indicating the moons yet intervening, their delight is not to be described. For the two nights previous to their departure for Amherst, where they were to embark on board the "Tubal Cain," they lay awake and singing, and had all their property carefully packed and put under their pillows. But at the moment of departure, they showed unwillingness to leave Shway Hman's wife behind, and when on board the ship, were disconsolate at their Burman friend himself not accompanying them. Fortunately they met there Lieut. Hellard I. N.,

whom they knew, and also a sailor of the Naval brigade at Port Blair, who had formerly charge of them, and to whom they were much attached, and under the care of these kind friends they reached their native country safely, and were, with all their traps, put on shore at a spot on the beach they pointed out, and quickly vanished into the jungle!

From that time to the present, I have heard no more of my quondam protegés: I cannot indeed distinctly ascertain whether either of them ever made his appearance again at Port Blair. An apprehension existed for a long time, that they had been murdered by their countrymen for the sake of the precious iron articles they had with them, and I know not whether such a conjecture has been refuted.

The experiment of civilizing these two, by weaning them from their wild habits and creating artificial wants, to supply which should involve the necessity of frequent visits to the settlement, and thus form as it were the nucleus of increasing intercourse with a superior race, has certainly so far failed. With younger subjects we might have succeeded better, particularly in teaching them English: but probably so at the expense of their own language and of their own habits to such a degree, that as interpreters or channels of communication with the natives, they would have been as useless as Crusoe or Friday. It remains to be seen what effects will by and bye arise from the repeated interviews between the aborigines and our people. Unfortunately these are frequently of anything but an amicable nature, and tend rather to widen than to bridge over the gulph between them. Indeed if the inference be correct, that the inhabitants are of the same race as the Nigrettoes of the Philippines, who to this day keep entirely aloof from the settlers on the coast, we may surmise that the colonisation of the Andaman islands, when its spread begins to interfere with the aborigines, will tend rather to the extermination of the latter, than to any amelioration in their condition. It is to be regretted that since the days of Colonel Haughton, very little information is published regarding our relations with this truly savage people.

Rangoon, July 28th, 1863.

Vocabulary of Andamanese words, as ascertained from CRUSOE *and* FRIDAY.

NOUNS.

Fish,	Do.
Man,	Má.
Woman,	Chana.
Water, Rain,	Pano.
Moon,	Chookleyro.
Yam,	Chatee.
Plantains,	Eng-ngeyra.
Rope,	Allák (Bengali ?) alát.
Cocoanut,	Jayda.
Rice (unboiled,)	Anakit.
A stick,	Erreybat.
Spit,	Moochee.
A pot,	Tók.
String,	Garrik.
Cock (poultry,)	Kookroo (Beng.)
Plate or dish,	Wyda.
Hat, cover,	Seytey tók.
A carriage,	Raik (?)
Knife, Sword,	Koona.
Pig, pork,	Rogo.
Noon or Sun ?	Aleyburdra.
A Sore,	Angoonchoon.
Fire,	Chaukay.
Fire-wood,	Chapa.
Meat, Flesh,	Rekdama.
Bread,	Oehata.
Boiled rice,	Chata.
A cheroot,	Dákanapo.
A snake,	Wangada.
A Bow,	Karama.
Broken bits of glass,	Beramato.

Needles, Arrow-head ? Bits of iron, Tólbót.

Smoke,	Moralitorkay.
Maize,	Oodala.
A Rat,	Itnachamma.
Bones,	Tato.
Sugar Cane,	Teeree.
Sweet things,	Jóng.
Little girl,	Chaujibal.
Little boy,	Májibal.
Flower,	Cheyda.
Ship,	Cheyley.
A spider,	Nyouada.
A musquito,	Tayla.
Tongue,	Kytala.
A tooth,	Tokadoobda.
A knee,	Lo.
Blood,	Pay.
Hair,	Eppee.
A foot,	Onkono.
A nose,	Icharónga.
A ear,	Pogo.
A eye,	Edala.
A hand,	Gogo.
Bits of cloth,	Rollo.
A gun,	Beerma (?)
A star,	Chittooree.
A stone,	Tylee.
Wax,	Pyda.
The head,	Pyleeda.
To-morrow,	Garra ?

Adjectives or Participles.

Cold (as meat,)	Mauriwada.
Chipped	Lokkamen.
Lost or concealed ?	Kytalaya ?
Cold (as weather,)	Tatay.
Spilt,	Kaupilay.
Unripe,	Potowyk.
Hot,	Deggaralak.

Itching,	Dowkodoblak.
Good,	Ooba.
Bad,	Ookaooba.
Tired,	Odoola.
Dead,	Awalay.

Verbs.

To sit,	Deedo.
To sleep,	Mamee.
To take,	Nya.
To go,	Kadó.
To come,	Kameeka.
To bring,	Taw.
To walk,	Dikleer.
To dance,	Tykpa.
To throw away,	Apay.
To vomit,	Dadway.
To bathe,	Darcha.
To cut,	Kauppa.
To give,	Jay.
To broil, / To roast,	Pówet.

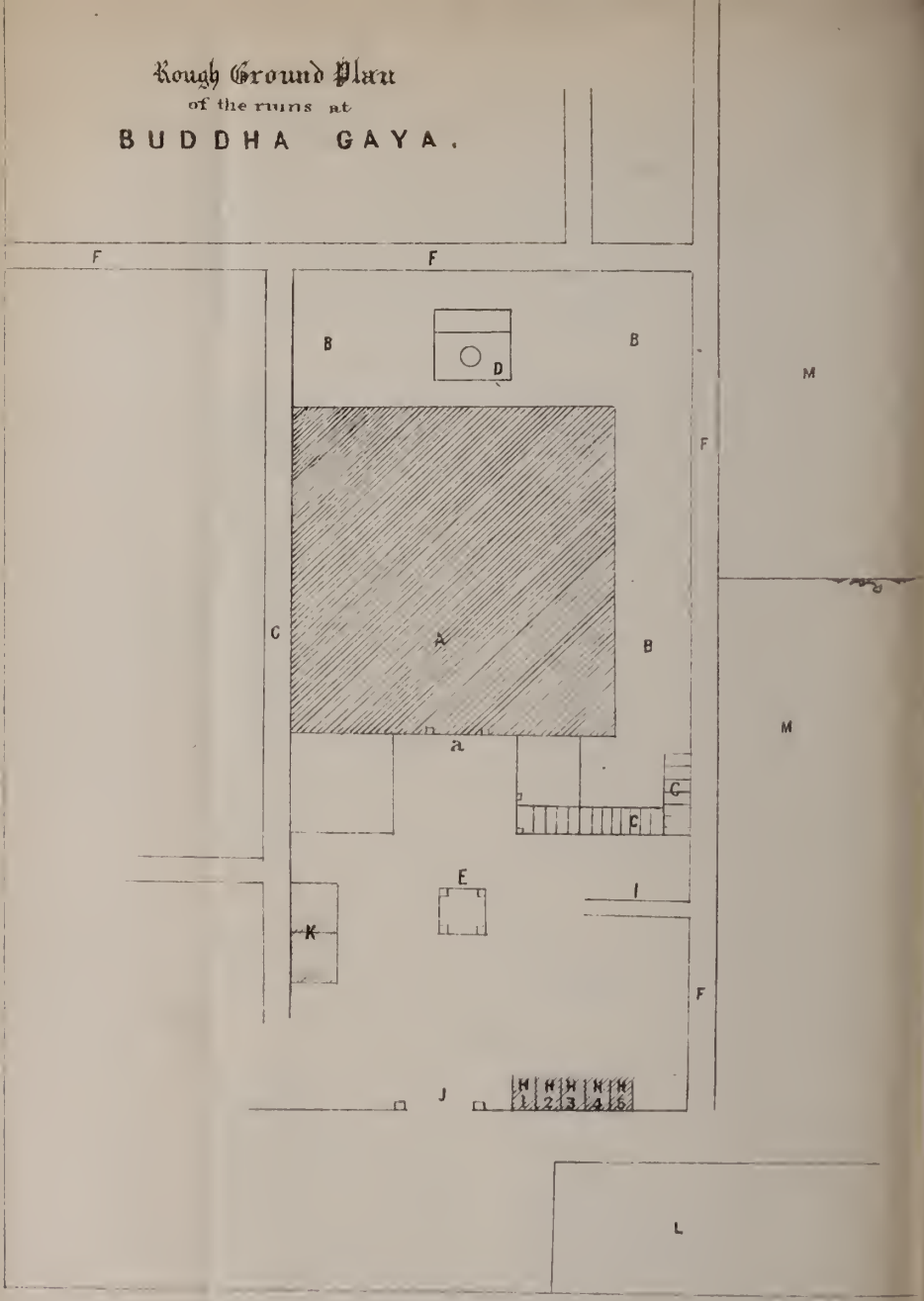
Adverbs.

Much,	Yâd.
No,	Yabadá.

Phrases.

Sit a little,	Tara deedo.
Much fish,	Yâd do.
Stomach full,	Tek bo.
Don't go,	Á kuddo.
Rain falls,	Pano lappa.
Put it down,	Gulla loongdakéy.
I will remain here,	Do palee.
Take it (from another,)	Nyey ree.
Let it be: Put it down,	Tota da.
I will not give,	Oochinda.
Let it alone,	Kookapa.

Rough Ground Plan
of the ruins at
BUDDHA GAYA.



REFERENCES.

A	*Principal Temple*
a	*Doorway*
B	*Terraces*
C C	*Stairs*
D	*Bodhi Tree*
E	*Buddha pad*
F	*Lines of Walls*
G	*Trench shewing the plinth of the Temple*
H 1 to 5	*Temples N°3 has a large seated figure in it*
I	*Stone Tunnel*
J	*Arched gateway*
K	*Modern rooms*
L	*Modern Hindu Temples & burial ground*
M.M.	*Site of cells for the resident monks*

I will drink, ...	Oowel lee.
There is none,.....	Tappee.
I want to sleep a little, ...	Tautaro mameekay.
Stomach aches, ...	Udda mookdoo.
I don't wish to stay, ...	Oopadopalee.
Boats are racing or rowing,...	Arra choro.
I have some, / There is some, ...	Gada.
It is lost, or I can't find it.	Ky'ta laya.

Note.—Some of these phrases are only inferentially derived, that is from their constant recurrence under like circumstances. When Crusoe or Friday were hunting about for anything and could not find it, they used to say in a vexed tone "Kyta laya." If offered anything, they would when refusing it in an *affirmative* manner, say "Gada" as if they had it already, and so on. It is very possible then that many of these phrases are not literally rendered.—S. R. T.

On the Ruins of Buddha Gayá.—By Bábu Rájendralála Mitra.

Having had lately an opportunity of devoting a short time to the examination of the Buddhist remains at Buddha Gayá, I believe a brief account of the excavations now being carried on at that place will not be unacceptable to the Society. Accordingly I do myself the pleasure of submitting to the meeting this note along with a drawing (done from memory) of the ground plan of the ruins, as also a sketch of the railing round the great temple at that place. They have been worked out from notes taken while on my travels, and may be relied upon as generally correct. I had no instrument with me for taking accurate measurements, and as Capt. Mead, the able officer who is now superintending the excavations, will, ere long, submit to Government a detailed report of his proceedings and discoveries illustrated by carefully prepared drawings, and as my object was simply to see what was in progress, I did not think it necessary or proper to take any measurement or anticipate the work of that gentleman.

Buddha Gayá is one of the most celebrated places in the annals of Buddhism. There it was that S'ákya devoted six long years in deep meditation to purify his mind from the dross of carnality, by abstaining altogether from food, and subjecting his body to the most unheard-

of hardships ; there he repeatedly overcame the genius of sensuality—*Mára*, who assailed him with his invincible host of pleasures and enjoyments to lead him astray from his great resolve ; and at that place he attained to that perfection which enabled him to assume the rank of a Buddha, the teacher of man and gods and dispenser of salvation. The exact spot where these protracted meditations and austerities were carried on, is said to have been the foot of a pipul tree, and hence that spot is held in the highest veneration by the followers of the Saugata reformer. It was believed to be the holiest place on earth ; temples and monasteries were erected round it even during the life time of Sákya, and as long as Buddhism flourished in India, it was the resort of innumerable hosts of pilgrims from all parts of the Buddhist world. With the downfall of Buddhism the place lost its grandeur, and at the end of the tenth century was, according to an inscription published in the *Asiatic Researches*, (Vol. I. p. 284) by Wilkins, "a wild and dreadful forest," "flourishing with trees of sweet scented flowers," and abounding in "fruits and roots," but "infested with lions and tigers, and destitute of human society." A magnificent temple, however, still stands, and around it vestiges abound to attest to its former greatness. General Cunningham has even recognised the identical flag of stone upon which on one occasion Buddha, while a roving mendicant, sat and ate some rice presented to him by two maidens.

The tree, however, under which Buddha sat, and which was the greatest object of veneration, has long since disappeared, and its place is now occupied by one which, though decayed and dying, is scarce two hundred years old. It stands on a masonry basement of two steps about six feet high, and built on a large terrace of concrete and stucco. Its immediate predecessor probably stood on a level with the first step which seems to have been raised long before the second. The third predecessor, according to this idea, was on a level with the terrace, and as that terrace stands about five and twenty feet above the level of the surrounding country, and as Capt. Mead, in course of his excavations, has found traces of two terraces, one very distinct, at intermediate depths, it is to be presumed that several trees must have from time to time occupied the spot where stood the original *Boddhidruma*, or "Tree of Knowledge," under which Buddha attained to perfection. It is no doubt possible that as earth and rubbish accumulated round

the original tree, people from time to time built raised terraces and covered up its roots, so that the tree in a manner rose with the rise of the ground-level, and that every new terrace or step was not necessarily an evidence in favour of a new tree; but the fact of the tree that now exists being a modern one, warrants the presumption of its having had several predecessors at different times. Moreover, as the plan of renewing the tree was evidently not by cutting down the old and planting a new one in its place, but by dropping a seedling in the axilla or a decayed spot of the old tree, so as to lead to the supposition that it was only a new shoot of the parent stem and not a stranger brought from a distance, it was found necessary to cover up the root of the new comer under guise of putting fresh mould on the root of the old one, to prevent the imposition being discovered. Hence it is that the present terrace is much higher than the tops of the surrounding heaps of rubbish.

Close by the tree, on the north side, is placed the Burmese inscription noticed by Col. Burney in the last volume of the *Asiatic Researches*. And immediately to the east of it stands the great temple of the place, a monument rising to the height of 160 feet from the level of the plain. Its pinnacle is broken; when entire it must have added at least twenty feet to the altitude of this cyclopæan structure. General Cunningham, in his Archæological Survey Report for 1861-62,* has given a full description of this edifice; but there is one point of importance in it which escaped his notice, and to it, therefore, I wish to draw particular attention: I allude to the existence of three complete arches on the eastern face of the building. The doorway is wide but low, and is formed of granite side-posts with a hyperthyrion of the same material. That was, however, supposed to be unequal to the weight of the great mass of masonry rising to the height of near 150 feet, which rested on it, and three Saracenic or pointed arches were accordingly thrown across to remove the weight from the hyperthyrion to the side abutments. Two of these arches have fallen in, breaking exactly where an over-weighted arch would break, namely, at the points where the line of resistance cuts the intrados. The third is entire. It is pointed at the top, but is formed, exactly as an arch would be in the present day, of voussoirs or arch-stones placed wedgewise, the first and last of which are sustained on the abutments, while the intermediate

* Ante Vol. XXXII. p. vii.

ones are held together in their position by their mutual pressure, by the adhesion of the cement interposed between their surfaces; and by the resistance of the keystone. Such a structure in an Indian building more than two thousand years old, struck me as a remarkable proof of the Hindus having had a knowledge of the principle of the arch at a very early period, though the credit of it has been denied them by all our Anglo-Indian antiquaries. Fergusson, in his Hand Book of Architecture, concedes to the Jains a knowledge of the horizontal or projecting arch, but adverting to the radiating or true arch, says, (Vol. I. p. 78) "In the first place no tope shows internally the smallest trace of a chamber so constructed (*i. e.* with a true dome)—nor do any of the adjacent buildings incline to such a mode of construction which must have ere now been detected had it ever existed." Elsewhere he observes (p. 254) "The Indian architects have fallen into the other extreme, refusing to use the arch under any circumstances, and preferring the smallest dimensions and the most crowded interiors, rather than adopt what they considered so destructive an expedient." Adverting to the Kotnb, he says, "all the openings possess pointed arches which the Hindus never used" p. 418). Again, "the Hindus however up to this time (*i. e.* of the Pathans) had never built arches, nor indeed did they for centuries afterwards" (p. 424). These remarks do not, it is true, directly mean that the Indians had no knowledge of the arch, but they imply it. Elphinstone is more positive. In his remarks on Hindu bridges, he says, "Nor does it appear that the early Hindús knew the arch, or could construct vaults or domes, otherwise than by layers of stone, projecting beyond those beneath, as in the Treasury of Atreus in Mycenæ." (Hist. of India, p. 163.) Depending on the testimony of these distinguished antiquarians one may very reasonably assign to the Buddha Gayá temple a much later age than it claims, but the fact of its having been visited by Fa Hian and subsequently by Hiouen Thsang long before the advent of the Mahomedans in this country, inevitably leads to the inference of its having existed at a pre-mahomedan era, while the position the arches occupy, is so natural and integral that it leaves no room for the hypothesis that they were subsequent additions. I brought the fact to the notice of Capt. Mead, who had kindly undertaken to shew the ruins to me, and he readily acknowledged that the builders of the temple, whoever

they were, certainly knew the art of constructing an arch, and the one before us was a very good specimen of it. The entrance gate to the courtyard of the temple has a similar arch over it, though there it has no superstructure to sustain, and seems to have been built more as an ornament than otherwise. It may not be amiss here to observe that by the selection of the pointed, instead of the semicircular, arch, the builder has displayed a correct appreciation of the superiority of the former in regard to its weight-bearing capabilities.

In a line with the gate, and to its north, there formerly stood a range of small temples, which have since fallen in, and been entirely buried under rubbish. Capt. Mead has laid bare five of these, and in one of them I saw a colossal figure of Buddha seated on a lotus throne, with the hands resting one upon the other on the lap. This position is called the *Dhyána Mudrá* or the "meditative position," and it was thus that Sákya passed his years of mental abstraction under the great pipul tree. There is an inscription on the throne which records the dedication of the figure by one Boddhikhsana of the village of Dattagalla, the writer being Upavyáyapurva an inhabitant of Masavágra. The character of the writing is the Gupta of the 4th century. The letters have been carefully cut and well preserved.*

Beyond these temples Capt. Mead has excavated a trench from east to west, laying bare a line of stone railing which formerly enclosed the courtyard of the great temple, running close along the base of the terrace around the sacred tree. It was formed of square granite pillars,

* The inscription comprises three slokas in the fascile octosyllabic anushtup, and runs as follows.

दमनिन्नरयरचित्ता सर्व्वसत्त्वानुकम्पिने।
सर्व्वनन्तरमदार स्थितमारायपतये॥
प्रुद्धात्माकारयामास बोधिमार्गरतोयतः॥
बोधिचरणेति विख्यातो दत्तगल्लनिवासिकः॥
सर्ववन्धविमुक्त्यर्थं पित्रोर्बन्धुजनस्यच
तथोपाध्यायपूर्व्वेण मासवाग्रनिवासिन॥ लि॥

Translation. "Salutation to (Buddha) whose mind is ever directed towards the control of his passions, and who is kind to all created objects, and this with a view to overcome the resources of Mára lodged in blissful gardens of unlimited expanse. (?)

Bodhikahana, the pure-hearted, of the village of Dattagalla having his mind devoted to the dispensation of Buddha, dedicated this (statue) for the removal of all kinds of bondage from his parents and relatives. Upavyayapúrva of the village of Masavágra wrote this." The author could not condense in the verse the word "wrote," so he has given it in initial after it. The third and fourth feet of the first verse are not intelligible.

each having three medallions on the front and three mortises on each side for the tenons of as many cross bars. On the top was a coping stone rounded above, but flat beneath. The pillars were seated on a square base with mouldings on each side. The falling in of the monastery which stood immediately to the north of it, broke and buried the railing, and the only parts now found in *situ*, are the stumps of the pillars and the basement. Fragments of bars and pillars are met with in plenty within the rubbish, but a great number of the bars had, evidently, been removed before the rest were buried.

To the west of the terrace a deep trench, cut through the rubbish, has brought to light the continuation of the railing on that side, but in a comparatively better state of preservation. In the middle of the line right opposite to the sacred tree there was a gate having the side pillars highly ornamented. Probably similar gates originally existed at the four cardinal points, but their traces are no longer visible.

In style, ornament, and material the railing bears a close resemblance to those of Buddhist remains in other parts of India. General Cunningham, adverting to those at Bhilsa, observes, "the style is evidently characteristic and conventional, as it is found wherever the Buddha religion prevails. It is in fact so peculiar to Buddhists that I have ventured to name it the 'Buddhist railing.' This peculiar railing is still standing around the principal topes of Sanchi and Andher, and some pillars and other fragments are still lying around the great topes at Sonari and Sátdhará. The same railing was placed around the holy Bodhi trees and the pillars dedicated to Buddha. The balconies of the city gates and the king's palace were enclosed by it. It formed the bulwarks of the state barge. It was used as an ornament for the capitals of columns as on the northern pillar at Sanchi, and generally for every plain band of architectural moulding. At Sanchi it is found in many places as an ornament on the horizontal bars which separate the bas-reliefs from each other, *Bhilsa Topes*, (p. 187)."

The trench opened on the south of the great temple, has been run close to its base with a view to expose the basement mouldings and the tiers of niches holding figures of Buddha, which were the prevailing ornament of the temple. Capt. Mead has in contemplation to run another trench parallel to the last, but at the same distance from the temple as the trench on the north is. This will most probably bring to light the third side of the railing.

Two or three trenches have been run through the extensive mass of rubbish to the north of the great temple, leading to the discovery of nothing beyond a few cells for resident monks, a great number of whom must have found their living in the neighbourhood of this once sacred spot.

Within the courtyard and opposite to the entrance, stands a small open temple formed of four granite pillars covered over by a heavy stone roofing. In the middle of this there is a large block of basalt, the material so largely used by Buddhist sculptors in the manufacture of their statuary, bearing on its upper surface the carving of two human feet, and a Sanskrit inscription on one side. On the centre of each foot are engraved, within a circle, the figures of a conch, a flag, a lotus, a *swastika* or magic figure of prosperity, a fish, and a few other objects which I could not well recognise.

The name by which this stone is commonly known is *Buddhapad*, or "Buddha's feet." It is remarkable, however, that the inscription on it does not at all allude to Buddha. It begins with the usual Brahminic invocation of "Om," gives the date in S'aka 1230, and records the names of Rávataji and Baladevaji as the dedicators of a temple. The letters are rather smudgy, and the facsimile prepared by me is peculiarly so, it is possible therefore that my interpretation of the monument may be questioned, but the great test of the creed of an oriental document is the salutation at the beginning, and that salutation in the record under notice, being the mystic "Om," which is common both to the Hindu and the Buddhist, it is impossible to determine to which of the two rival creeds the stone is to be assigned. Nor are the emblems engraved on the feet favourable to an easy solution of the question. They conform to no known canons of palmistry Hindu or Buddhist, regarding auspicious marks on the sole of the feet.

The Lalita Vistura, (Chapter 7) in giving an account of the peculiar marks on, and the character of, S'ákya's feet, says "He has expanded hands and feet, soft fresh hands and feet, swift and agile hands and feet (like those of a snake-catcher), with long and slender fingers and toes. On the soles of the feet of the great king and prince (Mahárájá Kumára) Sarvártha-siddha are two white wheels, beautifully coloured, bright and refulgent, and having a thousand spokes, a nave, and an axle-hole. His feet sit evenly on the ground." Such a wheel we look for in vain on the foot-marks at Buddha Gayá. Again in the Museum of the Society there is a large flag of white marble bearing

the figure of a human foot surrounded by two dragons. It was brought from a temple in Burmah where it used to be worshipped as a representation of Buddha's foot. It is 7½ ft. long by 3 ft. 6 inches in breadth, and has on it a great number of mystical marks. On the centre of each toe there is a figure of a conch-shell and a concentric line under it. A conch occurs also at the heel. On the centre of the sole, there is a circular figure with innumerable radii, standing evidently for the wheel with a thousand spokes described above. Around this wheel are arranged, in three tiers, one hundred and eight compartments bearing representations of temples, houses, forests, rivers, men in different attitudes, birds and beasts of various kinds—mostly imaginary, leaves and flowers, magical figures and other objects unintelligible to me. But I do not find the counterparts of these objects in the foot-marks at Buddha Gayá. There the figures are, it is true, included within a circle, but it has no wheel of a thousand spokes. Its prevailing emblems are more Hindu than Buddhistical. The lotus, the *swastika*, the fish and the discus are identically what has been assigned to Vishṇu's feet in the Brahminical shástras. Thus in the Skanda Puráṇa I find the marks on Vishṇu's feet are enumerated at 19, including, 1 a crescent, 2 a water jar, 3 a triangle, 4 a bow, 5 the sky, 6 the foot-mark of cattle, 7 a fish, 8 a conch, 9 an octagon, 10 a *swastika*, 11 an umbrella, 12 a discus, 13 a grain of barley, 14 an elephant goad (ankus,) 15 a flag, 16 a thunderbolt, 17 a jambu fruit, 18 an upright line, and 19 a lotus, of which the first eight belong to the left and the rest to the right foot.* Biswanátha Chakravarttí, in his gloss on the Bhágavat Puráṇa (10th book), has given the marks appropriate to the foot of Rádhá which include, 1 an umbrella, 2 a wheel, 3 a flag, 4 a creeper, 5 a flower, 6 a bracelet, 7 a lotus, 8 an upright line, 9 an elephant goad, (ankus) 10 a crescent, 11 a grain of barley, 12 a javelin, 13 a club, 14 a car, 15 an altar, 16 an earring, 17 a fish, 18 a hill, and 19 a conch.† The first eleven of these belong to the

* चन्द्रार्द्धं कलसं त्रिकोणधनुषी खं गोष्पदं षोडशिकां।
ध्वजं सव्यपदेऽथ दक्षिणपदे कोणाष्टकं स्वस्तिकं।
छत्रं चक्रयवाङ्कुशध्वजपविं जम्बूर्द्धरेखाम्बुजं।
विभ्राणं हरिमूनविंशतिमहालक्ष्मार्चिताङ्घ्रिं भजे॥

† छत्रारिध्वजवज्रपुष्पवलयान् पद्मार्द्धरेखाङ्कुशं
चार्द्धेन्दुञ्च यवञ्च वामचरणे शक्तिं गदास्यन्दनं॥
वेदीकुण्डलमत्स्यपर्व्वतदरं धत्तेलसद्ये पदे।
तां राधां चिरमूनविंशतिमहालक्ष्मार्चिताङ्घ्रिं भजे॥

left, and the rest to the right foot. The scholiast has pointed out at length the different places which these marks should occupy and the objects they subserve at those places. His opinion has been questioned, and Vaisnava writers of eminence have distributed these marks in very different ways. None has, however, to my knowledge, brought them together within a circle on the centre of the sole, as we find them at Buddha Gayá.

The date of the inscription on the Buddhapad is Śaka 1230 = A. D. 1308, and the characters are the nearest remove from the modern Devanágarí. The inscription must have been engraved immediately after the completion of the sculpture of the feet, for it is not likely that the profane hands of an engraver would be allowed to touch a stone, which had been, for any length of time, sanctified by the adoration of thousands, while the Hindu character of the emblems does not permit the supposition of the stone having existed at Buddha Gayá during the supremacy of the Buddhists. They suggest the idea that the foot-marks in question are of Hindu origin, and were put up by Hindus to reduce the place and its old associations to the service of their creed. Such adoption, whether insidious or avowed, of the holy places as well as the rites and ceremonial observances of one sect by another, has been common enough in the history of religion. We meet with it everywhere, and no where more prominently than in India among the Hindus and the Buddhists. There is scarcely one Hindu temple in ten of any great age in which is not to be seen some relic of Buddhism borrowed by the Brahminists. The great temple of Poori, which every year draws together pilgrims by hundreds of thousands from all parts of India, most of whom are prepared to lay down their lives for the truth and sanctity of the holy idol Jagannátha, is a Buddhist edifice built on the plan, and very much in the style, of the sacred monument at Buddha Gayá,* and the idol itself is no other than an emblem of *Dharma*, the second member of the Buddhist triad, represented by the old Pali letters *y. r. v. l. s.*; while tradition still preserves the memory of its Buddhist origin and calls Jagannátha the incarnation of Buddha, *(Buddhávatára)*.† It is not too much

* A closer parallel is met with in the temple of Barrolli near the fall of the Chambul. The domical structure on its top and that of the Poori monument is not however met with at Buddha Gayá.

† Cunningham's *Bhilsa Topes*, p. 358 and Laidlay's *Fa Hian*, p. 21—261. There is an inscription on the temple of Jagannátha which assigns the temple to Ananga

then to assume that on the suppression of Buddhism in the 10th and 11th centuries, attempts were made and successfully carried out, of converting Buddhist temples to Hindu usage, and that the foot-marks at Buddha Gayá are the result of one of those attempts.

We have, however, more than *a priori* arguments to establish the fact. In an inscription of the 10th century to which reference has already been made above, it is distinctly stated that a *Buddhapad* or Buddha's foot was set up at Buddha Gayá expressly for the purpose of performing thereon the Hindu rite of *sráddha.* Now as the liturgy of the Buddhists does not recognise that ritual, it must follow as a matter of course that the inscription is a Hindu one, and since its date is posterior to the downfall of Buddhism, it must be taken for granted that those who put it up, desired to reduce Buddha Gayá to the service of Hinduism by, what is commonly called, "a pious fraud."

The inscription itself is no longer traceable at Buddha Gayá. But its translation in the 1st volume of the *Asiatic Researches,* coming from the pen of Sir Charles Wilkins, may be taken as its exact counterpart. It starts by saying that "in the midst of a wild forest resided Buddha the author of happiness and a portion of Nárávaṇa. He was an incarnation of the deity Hari, and worthy of every adoration." The illustrious Amara Deva accidentally coming to the forest discovered the place of Buddha and with a view to make the divinity propitious, performed acts of severe mortification for the space of twelve years. The deity pleased with this devotion appeared to Amara in a vision and offered him any boon that he wanted, and on Amara's insisting upon a visitation, recommended him to satisfy vicariously his desire for a sight of the deity by an image. An image was accordingly made, and Amara eulogised it by calling it Brahmá, Vishṇu, Mahes'a, Dámodara, and by attributing to it all the great deeds performed by Vishṇu in his various incarnations. "Having thus worshipped the guardian of mankind, he became like one of the just. He joyfully caused a holy temple to be built of a wonderful construction, and there were set up the divine foot of Vishṇu for ever purifier of the sins of mankind, the images of the Pándoos, and of the descents of Vishṇu, in like manner of Brahmá and the rest of the divinities.

Bhima Dèva of the Gangá Vansa Dynasty (A. D. 1196,) but he is said to have only rebuilt or repaired what had existed for many centuries before his time and been subjected to many vicissitudes.

This place is renowned; and it is celebrated by the name of Buddha-Gayá. The forefathers of him who shall perform the ceremony of the *Sráddha* at this place shall obtain salvation. The great virtue of the *Sráddha* performed here is to be found in the book called *Váyu puráṇa*; an epitome of which hath by me been engraved upon stone." The inscription writer then goes on to say that Vikramáditya was certainly a renowned king; that there lived in his court nine learned men who were celebrated as the "nine jewels;" that one of them was Amara Deva, and it certainly was he who built the holy temple. The concluding paragraph states that "in order that it may be known to learned men that he (Amara) verily erected the house of Buddha," the writer "recorded upon stone the authority of the place as a self-evident testimony," on Friday the 14th of the wane in the month of Chaitra in the year 1005 of Vikramáditya=A. D. 948.

The writer leaves his readers entirely in the dark as to who he was; he does not even deign to give his name, and he talks of things which happened a thousand years before him. Such testimony can have no claim to any confidence. The value of an inscription depends upon its authenticity and contemporaneousness—upon being a record of circumstances that happened in the time of the writer, who must be a trustworthy person. But here we have none of those conditions fulfilled. We have a tradition a thousand years old, if any such tradition then existed, served up by an anonymous writer on the testimony of so unveracious a witness as the Váyu Puráṇa. The tradition itself bears the stamp of fabrication on its very face. Buddha Gayá, whatever it was in the time of the writer, could not have been "a dreadful forest" "infested by tigers and destitute of human society" in the first century before Christ, when Buddhism in India was in the zenith of its splendour, and when the place of Buddha's apotheosis was held the most sacred spot on earth. Nor could Amara Siñha of the Court of Vikrama who was known to have been a staunch Buddhist* and a clever scholar, be so far

* General Cunningham calls Amara a bráhmaṇa. But in the invocation at the beginning of his Dictionary the great lexicographer has given no reason to his readers to describe him as such. The invocation itself is as follows:

यस्यज्ञानदयासिन्धोरगाधस्यानवागुणाः।
सेव्यतामक्षयो धीराः सश्रियेचाक्षताय च ॥

"To him who is an ocean of wisdom and mercy, who is unfathomable, and whose attributes are viceless, even to him, O intelligent men, offer ye your adorations for the sake of prosperity and immortality."

forgetful of his religion as to glorify his god by calling him Hari, Vishṇu, Brahmá, the destroyer of the demon Keshi, the deceitful Vámána who cheated the giant Bali of his dominion, or a little shepherd tied to a post with a rope round his waist for stealing butter from the house of his neighbours. Such stories belong exclusively to the Puráṇas and can never be expected in a Buddhist writing. Then the Amara of Vikramáditya's court and author of the Dictionary was a Káestha, and his surname was Siñha.* I have nowhere seen him addressed as a Deva, which title formerly belonged exclusively to Brahmans and kings, though of late years the rule has been considerably relaxed. The story of the dream is of course a fiction, and the state-

Here the deity invoked is not named; and the commentators having tried to the utmost their ingenuity to apply the verse to most of the leading Hindu divinities, but finding it inapplicable, have one and all taken it to imply Buddha.

Mallinátha, the most distinguished among the scholiasts and the author of at least twenty different commentaries, explains the verse thus. "O intelligent men, for the sake of "prosperity," i. e. wealth, of "immortality," i. e. salvation, adore Buddha, whose virtues, whose charities, whose forbearance, &c. &c.

(हे धीरा श्रियै वृद्धये चामृताय मोक्षाय च स बुद्धः सेव्यतां यस्यबुद्धस्य गुणा दानशीलसमाद्य इत्यादि। MS. As. Soc. Lib: No. 188, p. 5).

Raghunátha, another commentator of some eminence, says: "O intelligent men, Let that Buddha be adored, that is by you. Here, though Buddha is not openly named still it is evident from the epithets used that he is meant. This is called the rhetoric of *prasáda*. Thereof it has been said by Kanthábharaṇa, where the object is evident from the meaning such a figure of speech is called prásáda, thus (the verse) "here rises the breaker of the sleep of the lotus,' without alluding to the dispersion of darkness or the assuaging of the sorrow of the brahmini goose, evidently means the sun." अथवा हे धीराः स बुद्धः सेव्यतां अर्थात् भवद्भिः दृष्टानुक्तोपि बुद्धो विशेषणेन प्राप्तं प्रतीयते इति प्रसादनामायमलङ्कारः। तदुक्तं कण्ठाभरणेन। यत्र प्राकरणमर्थस्य प्रसादः सोभिधीयते इति। यथा, अयमुद्यति निद्राभङ्गनः पद्मिनीनामित्यत्र तमोविध्वंसनकोकाशोककरणादिभिरनुक्तोपि सूर्य्यः प्रकारादुपलक्ष्यते।

(As. Soc. MS. No. 443, p. 2). Náráyana, another commentator, in the Padártha Kaumudi has reproduced the words quoted above without a remark. (As. Soc. MS. No. 438, p. 1). Ramánátha Chakravarti, after explaining the verse as applicable to Buddha, accounts for the name of Buddha not being openly given in the invocation notwithstanding the epithets used being peculiarly his, by saying "that to conciliate those who are not Buddhists the name of Buddha has not been used." बुद्धविद्वेषिणामेवेति बुद्धशब्दापादानं न कृतं। (As. Soc. MS. No. 443, p. 1, second series of pagination). This remark has been quoted verbatim by Ragnnátha Chakravarti in his commentary on the Amarakosha. (As. Soc. MS. No. 173, p. 1).

* I have no better authority for saying this than the author of the *Káyastha Kaustubha*.

ment of a temple built for Buddha having for its chief penates the image of Vishṇu's feet, those of the five Pandu brothers and of the several incarnations of Vishṇu, is equally so.

It was not expected that a distinguished scholar like General Cunningham with his thorough knowledge of Indian antiquities, should accept the figments of this inscription as true. He has however taken for granted that the great temple was built by Amara Siñha, and, as that individual was a contemporary of Varáha Mihira and Kálidása who, according to Bentley and others, lived in the 5th century, inferred that the temple must have been built in A. D. 500. His arguments are, first the non-existence of any temple in A. D. 400 when Fa Hian visited the place; second, the recorded erection of a large one by Amara Deva about A. D. 500; and third the exact agreement in size as well as in material and ornamentation between the existing temple and that described by Hiouen Thsang between A. D. 629 and 642.

Of these, the most important argument is the first, in which it is said that there was no large temple in existence at Buddha Gayá when Fa Hian visited the place between A. D. 399 and 414. It would at once establish the fact of the great temple of Buddha Gayá being subsequent to the date of Fa Hian's pilgrimage. But on referring to the itinerary of that traveller, I find that instead of his saying that there was no temple, he reiterates the fact that there were several temples in Buddha Gayá at his time, and that the temple near the Bedhi tree was one of them. The account of his travels is unfortunately very meagre. It is a simple recital of names of places and their distances, with a superabundance of legends, but with no topographical details. Still it is very precise as to the existence of temples near the Bodhi tree. Thus in the 31st Chapter (p. 277) we find it stated that at the place where Foe obtained the law *i. e.* near the holy pepul tree, "there are three *Sang kia lan*, and hard by are establishments for the clergy who are there very numerous. The people supply them with abundance, so that they lack nothing." In another place in the same chapter, Fa Hian, describing the approach and residence of S'ákya at Buddha Gayá, says: "The *Phousa* rose, and when he was at the distance of thirty paces from the tree, a god gave him the *grass of happy omen:* the *Phousa* took it and advanced fifteen paces farther. Five hundred blue birds came and fluttered three

times around him, and then flew away. The *Phousa* advanced towards the tree *Puto*, held out the grass of happy omen towards the east, and sat down. Then the *king of the demons* sent three beautiful girls who came from the north to tempt him, and himself came with the same purpose. The *Phousa* then struck the ground with his toes, and the bands of the demon recoiled and dispersed themselves; the three girls were transformed into old women. During six years he imposed upon himself the greatest mortifications. In all these places people of subsequent times have built towers and prepared images which exist to this day." Lest this be supposed too general, Fa.Hian again observes "The four great towers erected in commemoration of all the holy acts that Foe performed while in the world, are preserved to this moment since the *ni houan* of Foe. These four great towers are (1st) at the place where Foe was born, (2nd) at the place where he obtained the law, (3rd) at that where he turned the wheel of the law, and (4th) at that where he entered into *ni houan*." Here we have the positive testimony of the very traveller whom General Cunningham has quoted that a great tower, one of the four largest, existed in his time at Buddha Gayá at the end of the 4th century. But had this evidence been wanting the fact of one of the minor temples at that place having a statue inscribed with the Gupta character of the 4th century, would fully warrant the assumption of the main temple, whose reflected sanctity the little ones sought to imbibe, being considerably older. If we add to this the Buddhist belief reported by Hiouen Thsang and the Ceylonese chronicles, of Asoka having raised a lofty temple at Buddha Gayá, we have ample grounds to assign to the existing temple an age dating from the third century before Christ, and under any circumstance one considerably anterior to the 4th century A. D. of the Christian era.

The second argument of General Cunningham is founded upon the authenticity of the inscription translated by Sir Charles Wilkins, and the deduction of Kálidása, Varáha Mihira and Amara Siñha having been contemporaries in the 6th century. But as I have, I hope, satisfactorily shewn that that inscription is "not historically true," "the claims of reason," to quote the language of Niebuhr, "must be asserted, and we must not take anything as historical which cannot be historical."

As regards the argument founded on the exact agreement in size as well as in material and ornamentation between the existing temple and that described by Hiouen Thsang, it establishes only the fact of the present temple having existed in the beginning of the 7th century, but does not bar the probability of its also having existed many centuries before the advent of that traveller.

Both Hiouen Thsang and the writer of the Burmese inscription of Col. Burney, state that the temple was originally built by As'oka, and we see no reason to doubt their assertion. Bearing in mind how lavish As'oka was in his expenditure for the erection of towers and monuments in all parts of India, it is but natural to suppose that he had selected the spot where the founder of his religion attained to perfection as the most appropriate place for the largest and loftiest of his monuments. That such a monument should have lasted for six hundred years when Buddhism was still on the ascendant, so as to be visible in the time of Fa Hian, is not in the least improbable. No doubt the structure had had several repairs, and it is to these probably that the Burmese inscription, and Hiouen Thsang refer when they allude to the legend of the dream and the consequent "rebuilding" of the monument, but they do not controvert the position of its having been in the first instance erected by As'oka.

P. S. Since writing the above I have read Montgomery Martin's notice of the temple at Buddha Gayá (Eastern India, I. p. 23) and Buchanan Hamilton's description of the ruins at that place (Transact. Rl. As. Soc. II. p. 41). Both allude to the tradition about Asoka's having erected the temple, and express doubts regarding the authenticity of Amara's inscription. Hamilton describes a two-storied room near the temple which I did not see.

Description of a new species of Paradoxurus from the Andaman Islands.—By Col. Tytler.

As the mammalia found on these Islands must be of interest, I beg to send you the following description of a NEW Paradoxurus which I have named after myself,

Paradoxurus Tytlerii.

Length from tip of snout to end of tail 3 feet and 5 inches, of which the tail alone measures 1 foot and 8 inches, and the head about 6 inches, height at shoulder 8 inches, general colour, dark bister brown, thickly mixed with longer light hairs of an Isabeline colour, giving the animal a changeable colour from dark to light according to circumstances; the entire under surface is of a pale Isabeline hue; feet, muzzle, and ears dark, eyes hazel; whiskers white, mixed with a few black hairs; nails nearly white; teeth strong; cheeks dark; light down the nose, and about the eyes; very vulpine in appearance; tail round not prehensile. Naked area or glandular fold between the anus and the genitals; large feet of moderate size; fur very thick and of a moderate length. The above was taken from an adult male. In habits they are very nocturnal, and appear to feed almost entirely on fruit and vegetables. I had two males caught with a great deal of difficulty alive, but they soon died in captivity: I have preserved their skins and skeletons. Their call is rather cat-like, and they appear rather inoffensive in their habits, notwithstanding that at times they fought slightly with each other. I trust this brief account may be acceptable, and if so, should you desire it, I shall be happy when opportunities offer, to send you further notes from these distant islands.

I ought to mention that the Paradoxurus I have described is not very common; the two I obtained were both from Viper Island where they do great havoc amongst pine apples: they are great tree climbers, nocturnal in their habits, and living during the day in holes.

8th June, 1863.

Extract from Journal of a Trip to Bhamo.—By Dr. C. WILLIAMS.

February 3rd.—At about midday reached the neighbourhood of Tagoung. The river here runs between a portion of the Mingwoon range of hills, which, covered with forest, slope to the water's edge of the right bank,—and a steep bank of sandstone with a fringe of sand-banks on the left. Its course is from N. to S. About a mile below Tagoung I went on shore with a Burman who professed to know all about the old city. Along the bank on which we walked and which was formed of debris from the sandstone of the steep true bank, we proceeded about half a mile, when we entered a lane to the right, having on our left the old city wall of Tagoung, and on our right a stony and brick strewn rise that appeared to be also a ruined wall: we continued thus due east for about a quarter of a mile, when the wall on our left turned towards the N. E. and the rise on the right continued its easterly direction. On the north side of this latter the ground was on a level with the top of the rise. My guide declared it to be the north wall of Pagan; I rather thought it the run of an ancient counterscarp to the south wall of Tagoung.

I ascended the Tagoung wall with great difficulty, for the jungle, which is thicker and higher on the wall than elsewhere, contained many of the tearing and scratching species of plants that so frequently defy intrusion on a Burman jungle. Its brick structure was everywhere plain, and I should guess its outside height at the south and south-east sides, to be twenty feet. I tried to keep along the low ground close to the wall, but was obliged to submit to be guided round by a path, that after a circuit to the east, brought us to an eastern gateway. The brick work was here very hard and the backing of earth equally so. Just within the gateway were two decayed gate posts smaller than the gate posts of a good-sized Burman compound, but of the same kind, evidently a relic only of the latest period at which the modern village needed or was worth the protection of a gate. The wall here appeared to run due N. and S. Passing into the old city, a jungle path to the North West brought us to the present village of Tagoung, containing by the Thoogyee's account about one hundred houses, which is apparently correct. I called on this official, and found him civil and willing to give me all the information he could, which was not much. At my

request he drew a plan of the two cities on a parabeit. He confessed, however, that he had not seen the greater part of the wall, and especially did not appear at all certain about old Pagan. On the authority of "they say" however, he drew outlines like the following. (Pl. I.)

As my subsequent inspection rather confirmed this sketch, I give it to serve as a plan for reference.

The Thoogyee with the help of some of the numerous visitors I had attracted to his house, told me that anciently the two cities were surrounded by the river, an arm of which embraced the east sides and rejoined the main stream to the south of Pagan. The remains of this branch of the river he declared to be evident in the creek to the north of Tagoung, and in the fact that during the freshes of the rainy season, the two cities are actually surrounded by running water.

The walls of Tagoung he said followed the water-course, and those of Pagan too were only at a short distance from it. "In the rains, in fact, the two cities form the only dry ground in the neighbourhood." To the eastward a series of jheels and tanks are scattered through the jungle till, at the distance of a deing (two miles) or more, a small lake is met with, extending eight miles from N. to S. and six from E. to W. Beyond this lake is jungle, till the hills that run down from Monest are met about another deing further east.

All united in saying that Pagan is older than Tagoung, and all declared themselves ignorant of its history. "Its chronicles are all burnt," said one: another more intelligently remarked;—"It is not hundreds, nor even a thousand years that the city has ceased to be a capital: before religion came to the country it was the Burman capital, and what old man can tell us of its history?" On my enquiring after any stone inscriptions or other relics of antiquity, they said none have been found except a few small Budh images stamped in relief on bricks with an inscription beneath, that I might perhaps be able to read, but that they could not. They told me that these are all found on the ground within old Pagan, and nothing of the kind has been met with within the walls of Tagoung.

The Thoogyee sent for some pieces, and on examination the character proved to be Nagari, which I recognised, but cannot read when distinct, and this inscription was far from legible.

Taking temporary leave of the Thoogyee, I went through a wide

gap in the north wall, which seemed mostly levelled with the ground of the city, though its site is plainly marked by the brickwork, and found myself on the steep bank of the creek mentioned by the Thoogyee. Looking northwards, a long stretch of gradually narrowing water appears at last to end in a cul-de-sac amidst dense jungle. This is evidently an old passage, and at present an open one in the rainy season. To the right, close along the wall of the city, stretched a piece of low jungly ground, through which a small stream of water issued into the main creek. I went along this north wall till jungle and approaching darkness stopped me. The line of brickwork was plain enough, and close outside it, the ground sloped to the low swampy jungle which the natives said is covered with deep water every summer.

The present village, I should explain, is situated on the north-west corner of the old city: one or two old pagodas are near and several modern ones. The chief object of reverence to fear, however, is a Nat, which is said to possess great power for evil as well as good, and especially inflicts the stomach-ache on any offender. The material representative of this spirit is a rude head on a post, the whole of wood, about four feet high, with a tapering head-dress, half globes for eyes, a well formed nose and no mouth, but rather big ears. This dreaded image is lodged in a wooden shed like a Zayat, a portion of which, covered by an extra roof, is boarded off into a chamber about six feet square: within this stood the ugly post, amidst earthen vases and little pans in which flowers and lamps had been offered to it. As sketched from memory the outline of the thing was as below. (Fig. 1.)

I have heard of this terrible nat at Mandalay, and have been consulted by a former Thoogya for an incurable stomach-ache and asthma inflicted by it while he was in office here. The nat bears a bad reputation for vindictiveness and being easily offended. The origin of this particular worship at this spot, I will enquire further into before I make any guesses. In the evening I witnessed a striking example of the reverence the nat exacts from all comers to his neighbourhood. My Burman servants had evinced some fear in the day and refused to accompany me in a close inspection of his devilship. At the puey given by the Thoogya in the evening, the actors in which were a company of players from *Moutshobo*, I noticed these latter always making a shiko to somebody I could not see, before

Fig. 1.

they made the customary one to the entertainer himself. On the constant repetition of this I asked "Who is it they shiko to?" and was told by the Thoogya, "to the Lord nat," and then recollected that the nat shed stood in the direction of the obeisance which had puzzled me.

The inhabitants even dared to tell me that the nat was "teg sothe," very wicked, but in a confidential manner, as if they would not at all like the nat to know they said so.

The next morning, February 4th, was so foggy that I could see nothing. After despatching some letters, by a chance but safe opportunity to Mandalay for posting, I went on shore about 10 A. M., detaining the canoe, and sending on the large boat. I went to the Thoogya who had collected half a dozen of the brick reliefs, all that the village possessed, from which I selected three, and with the ready consent of the Thoogya brought them away. I then started for Pagan, and the Thoogya determined to accompany me. We passed out by a gateway in the east wall, north of that by which I had entered yesterday—where the direction of the wall was N. E. and S. W., and after walking through jungle in a southerly direction

for about half or a third of a mile, entered old Pagan by a pathway passing over a low ill-defined ridge, which the quantity of brickwork in the soil, as well as the assertions of the Thoogyee and followers, made evident as the north wall of old Pagan. To the west and east the same ridge could be seen to extend, but could not be followed for more than a few yards on account of the thick and prickly jungle. About sixty yards to the south, we came on a mass of brickwork, apparently an old pagoda, on which was a rude Budh protected by a modern though dilapidated shed, and with its back against the remains of the original Dzedi. There was nothing peculiar about it, but by the image were several of the brick casts above mentioned, but of a different stamp from those the Thoogyee had shown me at his house. The inscription was here more distinct, and, like the others, in the Nagari character. The Thoogyee permitted me to take the two most perfect. Continuing south for about 500 yards through dense jungle, the narrow path led us to a round pile of bricks overgrown with brushwood and grass, the ruin of a conical pagoda called by the people the "Mwy Zeegoon Phra." We climbed its almost perpendicular side by a path already worn, and from the top, could see how utterly the site of both cities was converted into forest and jungle. The walls could not be traced even in the faintest manner. The low ground to the east, however, was plainly outside the city. Several spots within had been used for "Toungya" cultivation : none had been otherwise made use of. Returning by the same path, for further progress southwards was barred, I got the best of the natives to accompany me to the eastwards, where he said the north-east corner of the city was apparent. We must have wandered through cartways and jungle paths about half a mile to the eastward before we came upon the supposed corner. To the westward I could not trace the wall, but straight to the south we traced distinctly the high brickwork for fully half a mile. To the right was impenetrable jungle the whole way, to the left low ground with occasional patches of forest, and much of the long feathery grass, which only grows in places well watered. This low land, the man said, is covered by water in the summer, and at that time there is a current all along by the wall.

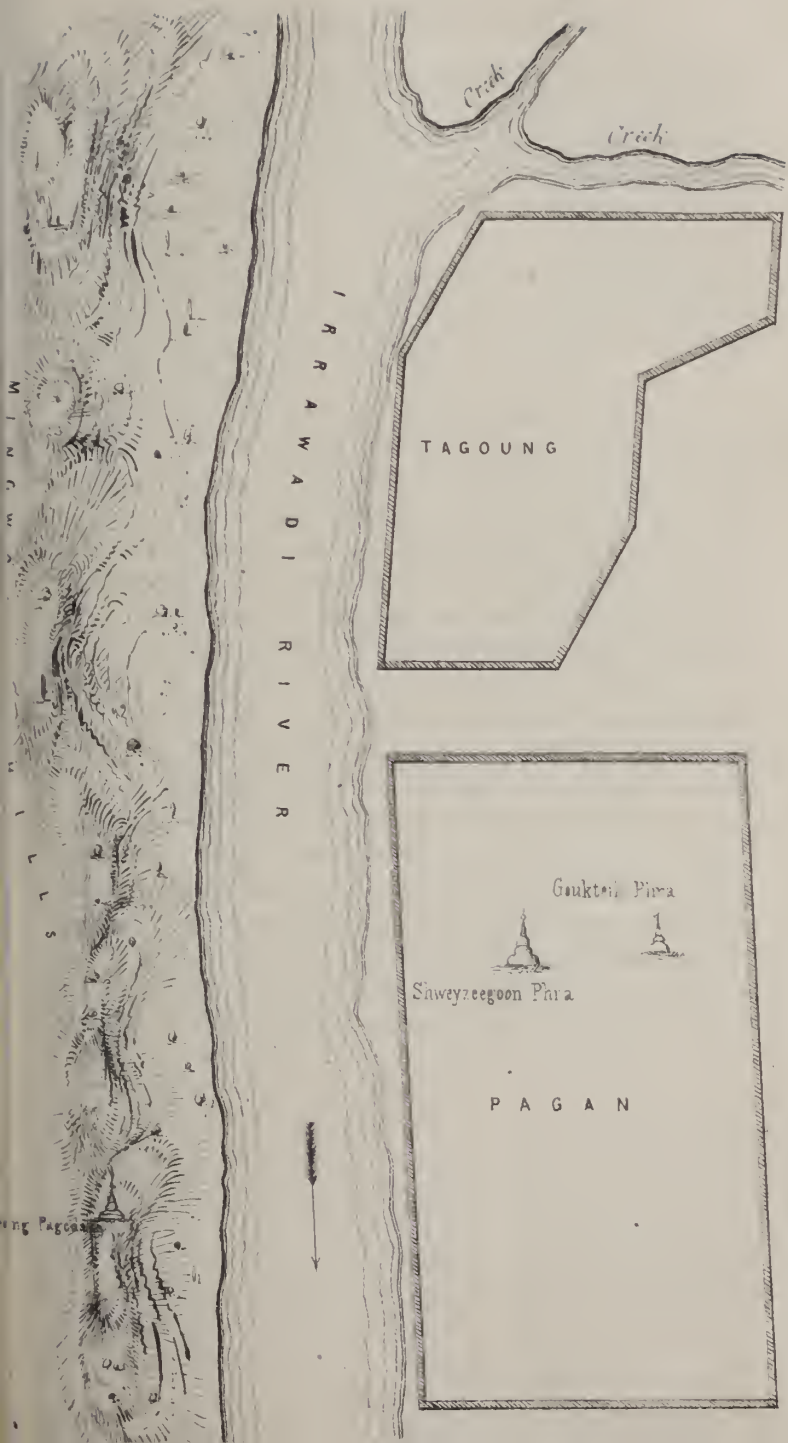
The jungle defied further progress. The guide said that the wall continues straight on southwards for twice the distance that we had come. We now passed through an ordeal of many scratches, and

struck upon a path within the walls, running south-west. Keeping this general course, we walked I think a mile and a half, and emerged over a line of brickwork on the same level with the top of the sandstone bank, and about a dozen yards within it. Now on the bank of the river I could not afford time to follow the wall line southwards, but from a good mark, (a large tree on the lower bank opposite the gap in the true bank,) I measured with a tape the distance to the apparent north-west corner of the city. This was 104 times 50 feet, or 5200 feet. From this it appears that the natives' account is probably correct, and that the city of Pagan was at least two miles in length from north to south, and probably a mile in breadth from east to west. A thousand feet from the supposed north-west corner of Pagan begins the west wall of Tagoung. This runs directly north for 24 times 50 = 1200 feet, then turns with the bank of the river to the north-east for 500 feet, from which the north wall is apparently continuous along the creek in a due eastward direction. The west wall of Tagoung is evidently a brickwork capping to the natural sandstone bulwark, and thus appears to be parallel with, but somewhat to the west of the west wall of Pagan, which lies behind the natural bank.

The whole was very probably an island in remote times, and it seems that insular or semi-insular positions have been favorite sites for Burmese capitals ; *e. g.* " Poukkan" or Lower Pagan on " Yunhlot" Island, Ava, and this the most ancient of all.

The Thoogyee who had left me after showing the Mwy Zeegoon Phra, now came down to the beach, and seemed a little puzzled at my measuring the old walls. His face bore a queer expression of doubt whether he had not committed a sin in allowing this perhaps dangerous proceeding. He, however, spoke very civilly, and we parted the best of friends, he promising me all the information procurable, on my return. It was now 4 o'clock, and a very cold pull it was to reach the boat, which I found about 8 o'clock, moored beneath the bluff of Tongue, about eight miles up the river. This Tongue is said to have been a capital before Tagoung. Again near Myadoung is a place " Thigine" on the west bank, called the Beloo Myo or Monsters' city, where *the walls are of stone*, and other evidences of superhuman handiwork are talked of. This must be of interest.

I fancy that in former times there were several petty states in the upper Irrawaddi valley, and that the Burmese chroniclers have merely


Creek
Creek
IRRAWADI RIVER
TAGOUNG
Goukteil Phra
1
Shweyzeegoon Phra
PAGAN

selected one at a time, and stringing backwards the genealogy of their modern kings, manufactured the tale of a continuous monarchy with a shifting capital and dating from the first inroad of Hindoo princes into the valley up to the present time. I understand from Hindoos that they have in their books some accounts of an incursion of Hindoos into this country.

The ancient extent of Hindoo influence over Indo-China and the adjacent archipelago, I suppose to be a well-proved fact, and the prominence given in Burman chronicles to the advent of the Hindoo prince is very significant.

I should have mentioned above, that the great extent of pond and lake, with the creeks of still water, make Tagoung a remarkably good fishing-place. Great quantities of fish are dried, and much made into "ngapee" and great numbers also are taken alive to the capital The small-fish are thrown into the boat and kept alive with frequent changes of the water. The larger fish are strung by the gills, or the nose, or the lip, and so towed down the river till the market is reached, At the time of my visit, the cul-de-sac creek to the north of the city was closed at its mouth by a bamboo netting, and the fish above were being narcotised with some bark, that I am as yet unacquainted with. The fish above the net being all taken, the net is removed, when after five or six days, fish enter the creek again and the process is repeated. At this creek and on the river in the neighbourhood of Tagoung, the fish-eating birds are particularly numerous. A few specimens I have shot and had skinned; among them the Scissor-bill (Rhimops nigra) and another very handsome web-footed bird of the size of a duck, with a long neck and a sharp pointed beak. It swims with only its head and neck out of the water, but watches for its prey most generally on the low sand banks, or on some projecting piece of drift wood. Its food is small fish. The Darter.

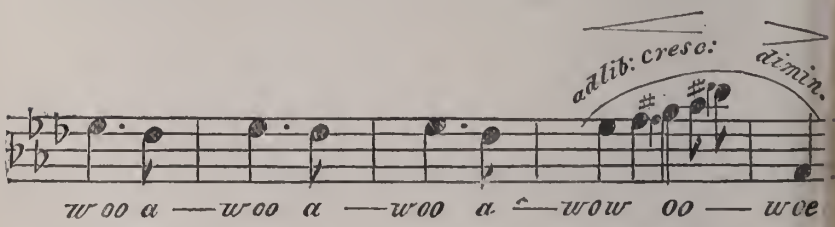
Note on the Gibbon of Tenasserim, Hylobates lar.—*By Lieut.-Col.* S. R. Tickell; *in a letter to* A. Grote, *Esq.*

I send a transcript from my Mammalian collection of what I had recorded of Hylobates lar, at least of its wild and tame habits. Notes on its osteology and soft anatomy and structure, you will not require, as you have a specimen by you, which I suppose from what you say of its paralysis will not live long. The one you have, must have been about $1\frac{1}{2}$ year old when I sent it you. Doubtless captivity has checked its growth. I give the dimensions taken of an adult one, but I think I have seen them larger, and the males are larger than the females, (as in all monkeys).

The Burmese and Talains never keep monkeys of any kind as pets. The Karens sometimes do. Of the Shans I cannot speak, but being Buddhists they probably do not either.

Hylobates Lar (Ogilby.)

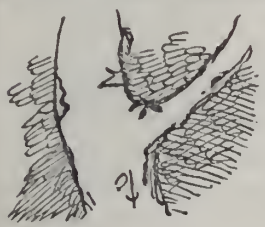
The *Hylobates lar* is found in great abundance in all the forests skirting the hills, which run from north to south through the province of Tenasserim. They ascend the hills themselves up to an elevation of 3,000 to 3,500 feet above sea level, but not higher, and are usually met with in parties of from 8 to 20, composed of individuals of all ages. It is rare to see a solitary one; occasionally, however, an old male will stay apart from the flock, perched on the summit of some vast tree, whence his howls are heard for miles around. The forests which these animals inhabit, resound with their cries from sunrise to about 9 A. M. Their usual call may be thus rendered.



The sounds varying from the deep notes of the adults to the sharp treble of the young ones. During these vocal efforts they appear to

HYLOBATES LAR. L.

resort to the extreme summits of the loftiest trees, and to call to each other from distant parts of the jungle. After 9 or 10 A. M. they become silent and are engaged feeding on fruit, young leaves, buds, shoots and insects, for which they will occasionally come to the ground. When approached, if alone, they will sometimes sit close, doubled up in a thick tuft of foliage, or behind the fork of a tree near the top, so screened as to be quite safe from the shot of the sportsman. The sketch in the margin may show how effectually a single gunner may be baffled in his attempts to secure a specimen. With a companion the manœuvre of course is useless. But indeed when forced from its concealment and put to flight, the Gibbon is not easily shot. It swings from branch to branch with its long arms, shaking the boughs all around, flings itself from prodigious heights into denser foliage, and is quickly concealed from view by intervening trees.



If hit, there is no animal more tenacious of life, and its efforts when desperately wounded to cling to the branch, and drag itself into some fork or nook where to hitch itself and die, excite amusement and compassion.

The Gibbon (if we restrict that name to this species) is not nearly so light and active as its congener *H. hoolock*, (the "Tooboung" of the Arakanese,) which latter species is not liable to vary in colour, being always black, with the hands and feet concolorous, and the supercilia only white, instead of a circle of that colour all round the face. The Gibbon, moreover, walks less readily on its hind legs than the hoolock, having frequently to prop and urge itself along by its knuckles on the ground. In sitting it often rests on its elbows and will lie readily on its back. Anger it shows by a fixed steady look, with the mouth held open and the lips occasionally retracted to show the canines, with which it can bite severely, but it more usually strikes with its long hands, which are at such times held dangling, and shaken in a ridiculous manner, like a person who has suddenly burnt his fingers. It is, on the whole, a gentle peaceable animal, very timid and so wild as not to bear confinement if captured adult. The young seldom reach maturity when deprived of liberty. They are born generally in the early part of the cold weather, a single one at

a birth, two being as rare as twins in the human race. The young one sticks to its mother's body for about seven months and then begins gradually to shift for itself. So entirely does this animal confine itself to its hands for locomotion about the trees, that it holds anything it may have to carry by its hind hands or feet. In this way I have seen them scamper off with their plunder, out of a Karen plantain garden in the forest.

I have had many of these animals while young in confinement. They were generally feeble, dull, and querulous, sitting huddled upon the ground, and seldom or never climbing trees. On the smooth surface of a matted floor they would run along on their feet and slide on their hands at the same time. By being fed solely on plantains, or on milk and rice, they were apt to lose all their fur, presenting in their nude state a most ridiculous appearance. Few recovered from this state: but a change of diet, especially allowing them to help themselves to insects, enabled some to come round, resuming their natural covering. For the most part they were devoid of those pranks and tricks which are exhibited by the young of the *Macacus* and *Innus*, though occasionally and if not tied up, they would gambol about with cats, pups, or young monkeys.

The tawny and the black varieties of the Gibbon appear to mix indiscriminately together. The Karens in the Tenasserim provinces consider there is a third variety which they name "Khayóo pabá," and the Talaïns "Woot-o-padyn" (blue ape). This is probably the party-coloured or mottled phase of the animal, which occurs very often to the southward, in Malacca. The pale variety is more numerous in the district of Amherst than the black one.

Hylobates lar extends southward to the Straits, and northward to the northerly confines of Pegoo (British Burma): whether it is found throughout Burma proper or not, I cannot ascertain. To the west of the spur dividing British Burma from Arakan, and throughout the latter province into the mountains east of Chittagong, is found only *Hylobates hoolock*. And further northward in the forests and hills of Cachar, Munnipoor and Asám exists either a third species, (not yet I believe distinguished by naturalists,) or if the same species as *H. hoolock*, so strongly modified as to be larger and stouter, with a totally different call, and subject to vary in colour the same as *H. lar* which *H. hoolock* in Arakan is not.

I subjoin the dimensions of an adult male specimen of *Hylobates lar* shot near Hlyng bway, Tenasserim province; January, 1855. But I believe it attains a larger size.

Length from crown to posteriors 1′ 7⅝″

Humerus 9½′, Radius 9½″, Hand 6″, Total 2′ 1″.

Femur 7½″, Tibia 7½″, Foot 4½′. Total 1′ 7½″.

Height when standing upright about 2′ 6″.

I should not omit mentioning the peculiar manner in which this species drinks, and which is by scooping up the water in its long narrow hand, and thus conveying a miserably small quantity at a time to its mouth. It is to be hoped the animal is not much troubled with thirst.

Literary Intelligence.

Extrait du mémoire de Mr. Holmboe *sur l'origine du systeme de poids de l'ancienne Scandinavie.**

Pendant que le système de poids de l' ancienne Rome, constituant la livre de 12 onces était en usage dans une grande partie de l'Europe, la Scandinavie se servait d'un système tout différent, comptant 1 mörk (plûtard dit mare) = 8 asrar (plur de eyrir, plûtard dit öre).

1 eyris = 3 örtugar ou ertugar (plur. de örtug).

On est frappé de rencontrer le même système en usage dans l' Inde méridionale moderne, ou,

1 çer est = 8 palas.

1 pala = 3 tolas,

et plus frappante encore est l'égalité de la pesanteur des poids respectifs des deux contrées si éloignées l'une de l'autre. L'auteur donne deux listes de la pesanteur de l'once (eyrir, pala) dans divers états de l'Europe et de l'Inde, d' où il résulte, que sa pesanteur, quoiqu' un peu variante, se trouve presqu'entre les même bornes ici et là, ce qui est aussi le cas avec l'once de plusiéurs états Mahometans hors de l'Inde.

Il est vrai que, depuis le moyen age, le mare de 8 onces a été en usage dans la plupart des états Européens; mais il faut remarquer, que l'on n'y s'en sert que pour peser l'or, l'argent et un nombre très limité d' autres articles précieux, pendant que la livre de 12 onces

* Communicated in a letter to Babu Rajendra Lal Mitra.

est le poids principal pour les vivres et les marchandises. Les Scandinaves au contraire se servent du marc, eyrir et ertag pour tout objet pondérable ; et la division de l'once en 3 unités inféreures ne se reneontre nulle part hors de Scandinavie et de l' Inde.

L'auteur a fait des recherches pour trouver des traces du systéme des Scandinaves dans les contrées, qu'ils passaient lors de leur émigration de l'Asie, et par lesquelles un ehemin de commeree trés frequenté entretenait les relations entre l'Orient et le Nord jusqu'à l'invasion des Tartares. Le résultat de ces recherehes se borne à attirer l'attention sur un grand nombre de lingots d'argent, qu 'il y a une trentaine d'années ont été desenterrés à Riazan, presqu' au eentre de la Russie. Or le poids moyen de ces lingots repond de trés près au poids du marc aneien des Scandinaves. Et à Bokhara on se sert aujourd'hui d'une once, dit Tolendak, dont le poids est presque égal à l'ancien eyrir.

Quant à l'origine de l'ègalité des poids du Nord et de l'Inde, l'auteur émet l'hypothése, que le système a été établi chez les aneêtres communs des Ariens de l'Inde et des peuples du Nord. Pour supporter cet hypothése il eite un certain nombre d'artieles de eivilisation, qui portent les mêmes ou presque les mêmes noms en Scandinavie et en Inde,—artieles qui démontrent un degré de civilisation, qui doit nécessairement avoir eu besoin d'un système de poids. Les émigrés doivent donc l'avoir apporté avee eux, les uns vers le Nord, les autres vers le Sud.

Translation.

Extract from the Memoir of M. Holmboe on the origin of the System of Weights in Ancient Scandinavia.

While the system of weights of ancient Rome, comprising the pound of twelve ounces was in use in a large part of Europe, Scandinavia used a very different system, consisting of

1 mörk (afterwards marc) = 8 asrar (plural of eyrir, afterwards ealled öre),

1 eyrir = 3 örtugar or ertugar (plural of örtug).

One is struck at meeting with the same system in use in modern Southern India where

1 sir = 8 palas,

1 pala = 3 tolahs,

and still more striking is the equality of the respective weights, in two countries so far distant from each other. The author gives two lists of the weight of the ounce (eyrir, pala) in the different states of Europe and India, from which it appears, that although its weight varies somewhat, the variation has almost the same limits in both quarters, which is also true of the ounce in several Mahometan states external to India.

It is true that the marc of 8 ounces has been in use in most European states since the middle ages: but it must be remarked that it is only employed there for the weighment of gold, silver, and a very limited number of other precious articles, while the pound of 12 ounces is the chief weight for provisions and merchandise. The Scandinavians on the contrary use the marc, eyrir and ertag, for every weighable object; and the subdivision of the ounce into 3 units of lower value, is met with nowhere but in Scandinavia and India.

The author has sought for traces of the Scandinavian system in the countries which that people traversed in their emigration from Asia, and through which passed a well-frequented commercial route, by which Eastern and Northern nations communicated, up to the time of the Tartar invasion. The result of these researches is limited to drawing attention to a great number of ingots of silver which were dug up at Riazan, almost in the centre of Russia; the weight of these ingots corresponds very closely to that of the ancient marc of the Scandinavians: and at Bokhara, according to Tollendak, an ounce is still in use, the weight of which is almost equal to that of the ancient eyrir.

As to the origin of this equality in the weights of the North and of India, the author suggests that the system was established by the common ancestors of the Arians of India and of the Northerns. In support of this view, he cites a certain number of articles of civilization which bear the same names in Scandinavia and India,—and which indicate a degree of civilization which must have absolutely required a system of weights. The emigrants then carried this with them; some to the North, the others to the South.

H. F. B.

Dr. E. Buhler *on Çâkaṭâyana's Sanskrit Grammar.*

I lately received through the kindness of my friend Mr. W. Stokes of Madras, part of a transcript of MS. 1071 (Alph. Cat. E. T. H. Col.) as well as the beginning and end of MSS. 1072 and 1073, which in the *Catalogue raisonnè* as well as in the Cat. Alph. are stated to contain the ancient grammar of Çâkaṭâyana, the predecessor of Yâska, Pâṇini and the author of the Mahâbhâshya.

On examination, MS. 1071 proves to contain a copy of the Çabdânuçâsana of Çâkaṭâyana with the Chintâmaṇi Vritti of Yaxavarman (beginning on fol. 31 of the original MSS., p. 149 of my transcript). The first thirty-one folios contain a compendium based on the same work, in the style of the Siddhântakaumudi. Its author and title I am unable to ascertain, as it is full of breaks in the beginning and in the end. MS. 1072 contains a work called Prakriyâsamgraha by Abhayacandra-siddhânta-sûri, likewise giving sûtras from the Çabdânuçâsana, but if it is commentary or an abridgment of the original I cannot say. MS. 1073 resembles closely MS. 1072; its title and author are not named.

Though I only possess about 1¼ pâda of the first adhyâya of the Çabdânuçâsana I venture to give a notice of the work without waiting for the completion of the transcript, as I think it can be proved satisfactorily, that that work really belongs to the predecessor of Pâṇini. Besides, the above-mentioned compendium allows me to form a general idea of the whole work.

In order to prove the correctness of the title given, I give the text of the introductory verses of the Chintámani:

Vîtarâgâya namah.
Çriyam kriyâdvah sarvajñânajyotira naçvarim.
Viçvam prakâçay-*accintámaniçcin*târthasâdhanah. (1)
Namastama(h) prabhâvâbhibhútabhûdyotahetave.
Lokopakâriṇe çabdabrahmaṇe dvâdaçâtmane. (2)
Svasti çrisakalajñânasâmrâjya, padamâptavân.
Mahâçramaṇa-samghâdhipatir-yah *çâkaṭâyanah.* (3)
Eka ççabdámbudhimbuddhimantharena pramathya yah.
Sayaçah çvi samuddadhre viçvam vyâkaraṇâmṛitam. (4)
Svalpagrantham sukhopâyam sampûrṇam yadupakramam.

Çabdânuçâsanam sârvam arharechâ sanvatparam. (5).
Eshṭirneshṭâ na vaktavyam vaktavyam sûtratah prithak.
Samkhyâtam nopasamkhyânam yasya *çabdânuçâsane*. (6)
Tasyâtimahatîm vṛittim samhṛityeyam laghîyasîm.
Sampûrṇalaxaṇâvṛittirvaxyate *yaxavarmaṇâ*. (7)
Grantha-vistara-bhîrûṇâm sukumâradhiyâmayam.
Çuçrûshâdiguṇân kartum çâstre samharaṇodyamah. (8)
Çabdânuçâsanasyâ nvarthâyâç *cintâmane* ridam.
Vritter granthe pramâṇamtu *shaṭsahasram* nirûpitam (9)
Indraeandrâdibhiççâbdair yaduktam çabdalaxaṇam
Tadihâstisamastam ca yannchâsti na tatkvacit. (10)
Gaṇadhâtupâṭhayor gaṇadhâtu *lingânuçâsane* lingagatam.
Uṇâdikâ *nuṇâdau* çesham niççeshamatra vṛittau vidyât. (11)
Bâlâbalâjanopyasyâ vṛitter abhyâsavṛittitah.
Samastamvâñgmayam vetti varsheṇaikena niçcayât. (12)

With these statements we must compare the end of the first chapter, which runs as follows:

Iti çabdânuçâsane cintâmaṇivrittau prathamasyâdhyâyasya prathamah pâdah.

Though there can be no doubt that the MS. contains the work of Çâkaṭâyana, still it remains to be proved that this Çâkaṭâyana is the predecessor of Pâṇini. For the name Çâkaṭâyana is a *nomen gentile* and does not originally designate one individual only. Besides we know from the commentaries on the Dhatupâṭha that there were two grammarians of this name.

Fortunately it is not difficult to decide this question, as Pâṇini quotes in three passages opinions of Çâkaṭâyana,—pûjârtham as the commentators say. Two of these rules are found in the fragment of the Çabdânuçâsana, which I have before me, the third is wanting because it refers to a matter treated of in one of the later books. The rules referred to are the following:

Pâṇini teaches viii. 4. 46.

Aco rahâbhyâm dve (scil. yare vâ).

Consonants with the exception of *h* (and of course also of *r*) standing after an *r*, or *h*, which is preceded by a vowel or diphthong, can, optionally, be doubled.

And viii. 4. 47.

Anaci ca.

(This doubling may also take place) if consonants except *h* and *r*, which are preceded by a vowel or diphthong, are followed by any letter except vowels, diphthongs *h* or *r*, (or if they stand at the end of a word).

In the following Sûtras he gives exceptions to these rules and says S. 50.

Triprabhṛitishu çâkaṭa'yanasya (na syât).

If three or more consonants follow each other (which otherwise fulfil the conditions stated above) the doubling shall not take place according to the opinion of Çâkaṭâyana, e. g.

Çâkaṭâyana allows only the pronunciation indra, not inndra.

In the Çabdánuçâsana we find the following corresponding rules:

I. 1, 117.

Acohrohracah, (dve vâ syâtâm) Cintâmaṇi: Acah paro yo hakâro rephaçca tâbhyâm parasya ahracah, hakârâdrephâdacaçcânyasya varṇasya sthâne dve rûpe bhavato vâ, brahmmâ brahmâ, sarvvah sarvah, dírgghah dirghah, ahraca iti kim, barhit, dahrah aham.

Translation of the Sûtra:

Consonants except 'h' or 'r' following an 'h' or 'r,' which is preceded by a vowel or diphthong, may optionally be doubled.

Sûtra I. 1. 118.

Adîrghât.

Cintâmaṇi:

Adîrghâdacah parasyâ hracah-sthâne dve rûpe bhavato vâ, daddhyatra dadhyatra, patthyodanam pathyodanam, tvakk tvak, tvagg tvag, go-nu-ttrâtah go-nu-trâtah, anvityadhikârât (from Sûtra 115 çarone dve) kutvâdau kutve dvitvam, adîrghâdeka halîtyanuktvâ na samyage (Sûtra 119) tvacîti (Sûtra, 101) yogadvayârambhât, virâme pyayamâdeçah ahraca iti kim sahyam, (?) varyyah, aryyah titau, adîrghâditi kim, sûtram, pâtram, vâk.

Translation of the Sûtra:

Consonants except *h* and *r* preceded by a short vowel and followed by any letters (except those specified in the following rules) or Virâma, may optionally be doubled.

Sûtra I. 1. 119.

Na samyage.*

Cintâmaṇi.

* MS. na samyago.

Halonantarâh samyagah, samyage pare ahracah sthâne dve rûpe na bhavatah, indrah, (kṛitsnam.)

Translation of the Sûtra:

If consonants except *h* and *r* are followed by a group of consonants, the doubling does not take place.

The last Sûtra apparently contains the opinion ascribed to Çâkaṭâyana by Pâṇini in his rule VIII. 4. 50. At the same time it must be observed that Pâṇini says in VIII. 4. 52.

Adirghâdâcâryâṇâm,—All the Açâryas forbid the doubling of a letter preceded by a long vowel, and that Çâkaṭâyana who must be regarded as one of the Achâryas teaches the same thing in the Sûtra 118 just quoted.

The second passage occurs Pâṇ. VIII. 3. 18. After having taught VIII. 3. 17. that the Visarga must be changed to *y* after a penultimate 'a,' 'â' and 'o' in the words aghah, bhoh, bhagah he (VIII. 3. 18.) continues.

Vyor laghuprayatnatarah Çâkaṭâyanasya and *v* and *y* (following *a*, *â* or *o* in the three words mentioned) are to be pronounced with less effort (movement of the tongue) than usually—according to the opinion of Çâkaṭáyana.

Çâkaṭáyana's sûtra, I. 1, 154, contains precisely the same rule.

He teaches I. 1. 153.

Vyoshyâ gho bho bhagoh, (scil. gluk).

Cintâmaṇi.

Avarṇâdagho bho bhago etyetebhyaçca parasya padântasya vakârasya yakârasya câshipare glug bhavati (gluk supplied from sûtra 152), vrixa hasati (?) vṛixavṛiçcamâ caxaṇovṛica (?); devâ yânti; agho hasati, bho dadâti, bhago dehi; padânta iti kim, gavyam, jayyam, bhavyam.

Translation.

A final 'v' and 'y' following a short or long 'a,' or the words aghoh, bhoh, bhagoh, must be elided before soft sounds (vowels, diphthongs and soft consonants).

Sûtra I. 1. 154.

Acyaspashṭaçca, (glug).

Cintâmani.

Avarṇâd-agho-bho-bhagobhyaçca paryoh padântantayorvyoraci pare glugaspashṭah avyaktaçrutiçcâsanno bhavati, paṭau paṭav'*u, tau tay'*u,

agho u aghoy'*u, agho atra aghoy'atra, bho atra bhoy'atra, bhago atra bhagoy'atra, gluei gita iti sandhipratishedhah.

Note.—In the eases marked by * the MS. has y and v instead of y', v'.

Translation.

And if *v* and *y* (in this position) are followed by a vowel or diphthong, then the elision is not clearly audible; (i. e. the pronunciation of the *v* and *y* is unarticulated and the letters are hardly audible).

I add the explanation of the word aspashṭah given in the abovementioned eompendium. There we read:

...aspashṭah aspashṭaçrutih praçithila sthânakaraṇaparispandaçea âsannah vakâro yakâraçca.....

Again it must be observed that Pâṇini says VIII. 3. 22. hali sarveshâm—*All* the (old) grammarians prescribe the loss of sueh a *v* and *y*, if it is followed by consonants; and this rule is eertainly eontained in Çâkaṭâyana's Sûtra, I. 1, 153.

After this, I think, there ean be hardly any doubt that the author of the Çabdânuçâsana was the predeeessor of Pâṇini.

But, in order to make doubly sure, I will adduee another proof for this relation, which seems to me to be still more eonelusive.

Pâṇini teaches V. 2. 124: vâco gminih.

The word vâe takes the affix gmini (in the meaning of matu).

The Caleutta Pandits who prepared the first edition of Pâṇini understood the Sûtra so, that the real form of the affix was gmin, and consequently formed the monster vâggmin (with double g.). They even misled Dr. Boethlingk (see his note to the Sûtra). Benfey* and Aufrecht† understood the Sûtra rightly and formed vâgmin. The latter form alone oeeurs in literature, and is the only eorrect one. The obscurity of the Sûtra is eaused by Pâṇini's negligenee. He has omitted to state that the letter 'g' is prefixed to *min* only in order to indieate that the final of *vâc* does not become nasal, as it ought, aeeording to the Sandhi rules. He has taken the Sûtra, with a slight alteration, from Çâkaṭâyana's grammar, where aecording to the Compendium, it is read thus: vâco gmin.

It is perfectly intelligible in Çâkaṭâyana's system, as there a prefixed 'g' constantly means "no Sandhi." The author of the Compendium says in commenting on the Sûtra:

* Vollst. Sankt. gr. aff. min. † Uṇâdisûtras glossary s. v. vâgmin.

Gakâro-nunâsikanivṛittyarthah.

The letter 'g' is put in order to forbid the nasal.

On other occasions Çâk. forms gluk (g + luk) in order to indicate an elision which causes hiatus, e. g. in devâ âyânti for devâh âyânti. (See the above Sûtra I. 1. 153 and the Cintâmaṇi thereon). Here we have a clear instance, where a Sûtra of Pâṇini presupposes the existence of the system of Çâkaṭâyana.

For an abstract of the contents of the first and second half-pâda of the first Adhyâya I must refer to the Journ. B. B. R. A. S. Here I must content myself with saying that they contain Samg'nâ, Paribhâshâ, Sandhi rules, and the beginning of the declension.

From a comparison of these rules with the corresponding ones of Pâṇini as well as other parts occurring in the Compendium, it can be clearly established that Pâṇini's grammar is a very much *amplified and corrected edition* of Çâkaṭâyana's, and by no means what we should call an independent and original work.

A great many technical terms and names of affixes and roots he has directly borrowed from his predecessor: e. g.

1. Technical terms.

Yuvan, vriddha (which Pâṇini uses *sometimes* for gotra, upasarga, avyaya, taddhita, kṛit, dîrgha, pluta, hrasva, nap, sup, dhâtu, pratyaya, ghi, ghu, etc.

2. Affixes.

Vatu, ḍati, ṇâ, ṇap, ṇi, ñgî, ḍâc, evi, jhi, ṭatṛi.

3. Roots.

Kriñ. The commentaries give the roots, as far as I have observed, *always* in the same forms as Pâṇini. The part of the text before contains no other roots than kṛiñ. As Çâkaṭâyana's Dhâtupâṭha is in existence, I hope to be able hereafter to give further details on the subject.

4. The Gaṇas resemble very closely those of Pâṇini. In the Compendium I find the Gaṇa svarâdi at full length, and it is nearly the same as that given by the Calcutta Paṇḍits in their edition of Pâṇini, except that it comprises also the gaṇa prâdi. Besides I find the gaṇas ûryâdi and sâxâdâdi mentioned in Çâkaṭâyana's grammar. The Gaṇa pâṭha belonging to Çâkaṭâyana's Çabdânuçâsana is said to be in existence.

Besides many entire Sûtras have been borrowed by Pâṇini from his

predecessor, e. g. Tirontardhau I. 4. 71. uṇádayo bahulam, III. 3. 1. nirváṇováte, VIII. 2. 50. etc.

One of the questions, connected with this book, which will perhaps excite the greatest interest is, whether Çâkaṭáyana really was a Jaina or Bauddha, as we are led to think on account of his title maháçramanasamghádhipati "moderator of the convention of the great Çramaṇas." The word samgha—"convention"—shows, that he belonged either to the Bauddhas or Jainas, and his commentators, who are all Jainas, of course desire to show that he was of the latter persuasion.

I cannot venture to express at present any definite opinion on the subject. But I believe that Çákaṭáyana was *not* a Brahman, and should not be at all astonished, if it were established by additional evidence, which I hope will soon come into my hands, that he was a follower of Çákyamuni.

Extract from a letter from L. Bowring, *Esq., dated Bangalore, 22nd March*, 1864.

I may take this opportunity of mentioning that the Malnáḍ or hill portion of Mysore through which I have recently marched, possesses a great number of inscriptions, some of the Anagerudi dynasty, others of the Kaḍamba Rajas, and others again of the Skêri House who ruled these wild tracts up to the time of Hyder Ali. The inscriptions are, with very few exceptions, in what is called Hale Kannaḍa or old Canarese, and are read with difficulty. They are invariably on large slabs placed upright in the ground, and generally with no protection from the weather. A great many of these inscriptions were copied and sent to Bengal by Dr. Buchanan, who visited Mysore under orders from Government in the beginning of the century and wrote a very interesting account of his tour, in three volumes. Mr. Walter Elliot also, of the Madras C. S., collected a great number of these inscriptions, but I do not know whether the results of his labours were communicated to the Society at Calcutta. I purpose some day, if I can secure the services of a qualified copyist, to have all that can be found in the country copied systematically.

The most interesting traces of ancient time that I have seen in the Malnáḍ are those of the Jain sectarians. Formerly there was a noted dynasty of Jain Rajas, called the Belál Rai Rajas, who ruled both above

and below the ghâts, their head-quarters being at Halebid where there is a splendidly carved temple. It is fifteen miles from Hassan. These Jain Rajas fell before the followers of Shankar Áchárya and the Vaisnavas about 800 years ago, the last Jain Raja having deserted his faith and become a believer in Vishnu, taking the name of Vishnu Vardhana. The head of the Smártas, the Sringagiri Swami, is now supreme in the Malnád country. However, Jains are still found in great numbers, and, in the remoter parts, the Heggades or Potails are generally of that faith, so that it is not unusual to find in a village a Jain Bastí, as the covered-in temples are called, with a large standing image of one of the twenty-four personifications. The present principal seat of the Jain religion is Srávana Belgul, about fifty miles north of Mysore, where there is a colossal statue of Gomateshwar hewn out of the summit of a hill, and looking northwards over the country. It is about forty-five feet high, and, though too broad in the shoulder and arms, is a fine figure. The legs are dwarfed, owing I presume to the figure having been undertaken on so gigantic a scale, that great expense would have been entailed by carving the lower extremities down to their full length. In the "Bastí," in the centre of which this image stands, there are seventy-two figures about three feet high, all of black stone, representing the different attributes of the divinity, each on its own váhana or vehicle. I incline to think that if the history of the Jains in the western part of Mysore were methodically taken up and investigated, it would be an interesting subject of research. There are few literate men in the hills; and the Brahmins are very ignorant regarding all inscriptions, as an instance of which I may mention, that when at Kalas, near the sources of the Tungabhadra river, I enquired whether there were in the Devasthan there any incised slabs, and was answered in the negative; but on visiting it in the evening, I found twenty-six stone Shásanas in Canarese (one of Salivâhan 1132), one in Devanágari and two on copper plates. This part of the country is, however, very wild, and, so far as I could ascertain, no European had been to Gangámul (the sources of the Tungabhadra) for twenty years before my visit. There is a proverb that the Kalas Mágani (Taluk) is a country of 3000 pagodas, 6000 hills, and 12,000 devils. The scenery in it is very fine.

PROCEEDINGS

OF THE

ASIATIC SOCIETY OF BENGAL,

FOR MARCH, 1864.

The monthly general meeting of the Asiatic Society was held on the 2nd instant.

Dr. T. Anderson, Vice-President in the chair.

The proceedings of the last meeting were read and confirmed.

The annual accounts of the Society for 1863, were submitted.

It was proposed by Colonel Dickens, and seconded by Mr. Blanford, that the thanks of the Society be voted to the auditors for their labours in auditing the Society's accounts. The proposition was carried unanimously.

Presentations were announced—

1. From Lieutenant R. C. Beavan, a copy of "Westwood's Oriental Entomology."

2. From Baboo Prosonno Coomar Tagore, two copies of the Dáyabhága with six commentaries, published by himself.

3. From W. T. Blanford, Esq., Deputy Superintendent of the Geological Survey of India for Bombay, specimens of land crabs and a grouse.

4. From His Highness Hekekyan Bey, C. E., a copy of his treatise on Egyptian Chronology.

Colonel Guthrie exhibited a remarkably fine pair of Wapiti horns.

The Chairman announced that a deputation had waited upon the Right Hon'ble Sir John Lawrence, with the following address requesting His Excellency to become the patron of the Society, and that he had been pleased to accept the office in the terms of the subjoined reply.

ADDRESS.

"To His Excellency the Right Hon'ble Sir John Laird Mair Lawrence, Bart., G. C. B., K. S. I., *Her Majesty's Viceroy and Governor-General of India.*

"On the part of the Asiatic Society of Bengal, we, its President and Members, respectfully solicit that your Excellency will be pleased to accept the office of patron of the Society.

"Founded in 1784, by Sir William Jones, the Asiatic Society has, for 80 years, devoted its labours to the advancement of Asiatic science, whether that science be the record of the works of man, or the investigation of the phenomena and laws of nature. The history, literature and philosophy of India, the laws and customs of its people, the architecture of its ancient cities, and the languages and dialects of its numerous races of past and present time, have been largely recorded and elucidated by the labours of the many eminent men whom the Society has been proud to enroll as its members. On the other hand, the geography and physical structure of India and Southern Asia, the Fauna and Flora of this and neighbouring countries, their climatal phenomena and the physical laws of nature, to a knowledge of which modern civilization is so largely indebted, have equally been objects of the studious researches of the Society, and the numerous volumes of its publications, and the large and valuable collections in its museum, amply testify to the zeal and skill with which these objects have been pursued.

"Furthermore in all questions bearing on the material progress of this country, the Asiatic Society has ever taken an active interest, and much valuable information on the mineral resources of India, on the geography and people of the frontiers, on the practicability of new trade routes, and similar matters directly affecting the wealth or intelligence of the country, has been amassed and recorded in the researches and journals of the Society.

"To the co-operation of the Indian Government and the enlightened appreciation and sympathy of your Excellency's predecessors, the Governors-General and Viceroys of India, the Society has been in no small degree indebted for that measure of success which has attended its labours. The establishment of the geodesical, geological and

hydrographic surveys of India, and of botanic gardens under the superintendence of a series of able and accomplished men of science, the formation of an Oriental fund for the publication and diffusion of ancient Indian literature, the appointment of a Government archæologist, and the grant of pecuniary aid which the Asiatic Society has for many years past received from Government for the support and extension of its museum, bear ample witness both to the independent and co-operative action of Government in furthering those objects, for the advancement of which the Society was originally founded. The contemplated transfer of the Society's collections to Government as the nucleus of an imperial museum, and the measures now pending for a more general and systematic registration of meteorological observations, are further actual evidence of a similar enlightened disposition, and in your Excellency's acceptance of the office of its patron, the Society will receive an assurance that under your Excellency's rule, the advancement of science in its widest sense, the rescue from oblivion of the records of the past, the observation and orderly co-ordination of actual phenomena under the influence of human thought, and the wider diffusion of the embodied results of human experience for the instruction of the future, will not less than heretofore be deemed worthy objects of an enlightened and progressive Government."

HIS EXCELLENCY'S REPLY.

"To the President and Members of the Asiatic Society of Bengal.

"Gentlemen,—"I accept with pleasure the office of patron of the Asiatic Society of Bengal; and I can assure you of my earnest desire to do all that I legitimately can, for the furtherance of the important objects which the Society has at heart.

"I have perused with much interest the statement embodied in the address just presented, regarding the results already accomplished by the Society, and the ends towards which it is still striving. I am persuaded that the Society's operations are well worthy of co-operation and encouragement on the part of the Government in this country, in that they foster those scientific studies which practically conduce to civilization, and to material progress; while on the other hand, they effect great moral good by guarding the valuable

associations of the past; and by keeping alive our sympathies with the Oriental mind and character. Thus it is, that the work of your Society conduces both to European and to Native interests in India, and tends to strengthen the bonds of union between the rulers and the people.

"I trust, gentlemen, that we may preserve the memories and traditions of the great and good men who have adorned this Society during the eighty years of its existence, and that the example of their learning and wisdom may animate and inspirit us in our efforts for the future.

"I beg that you will receive the expression of my best wishes for the continued success and prosperity of the Asiatic Society of Bengal."

(Signed) "JOHN LAWRENCE."

Calcutta, 8th February, 1864.

Letters from Messrs. H. Stainforth, A. M. Monteath, Captain J. Davidson and Major A. D. Dickens, announcing their withdrawal from the Society were recorded.

The following gentlemen duly proposed at the last meeting were balloted for and elected ordinary members:

H. R. Spearman, Esq.; C. J. Wilkinson, Esq.; F. A. Pellew, Esq., C. S.; Baboo Jagadánund Mookerjee; Lieutenant E. A. Trevor, Dr. W. J. Palmer and Lieutenant G. M. Bowie.

The following gentlemen were named for ballot as ordinary members at the next meeting:—

J. L. Stewart, Esq., M. D., Assistant Surgeon, Lahore,—proposed by the President, and seconded by Mr. H. F. Blanford.

Professor H. Blochmann,—proposed by Captain Lees, and seconded by Mr. H. F. Blanford.

The Rev. W. G. Cowie, Domestic Chaplain to the Right Rev. the Lord Bishop of Calcutta,—proposed by the Bishop, and seconded by the Rev. M. D. C. Walters.

The Hon'ble Maharaja Mirza Vijaya-rám Gajapati Raz, Munniam Sultan Bahadur of Vizianagram,—proposed by Rajah Sutto Shurn Ghosal Bahadoor, and seconded by Moulvi Abdool Luteef Khan Bahadoor.

Communications were received—

1. From R. H. Barnes, Esq., abstract of the meteorological observations taken at Gangarowa near Kandy, in Ceylon, for July and August, 1863.

2. From Baboo Gopeenauth Sen, an abstract of the results of the hourly meteorological observations taken at the Surveyor General's Office, Calcutta, for December last.

3. From the Punjab Auxiliary Committee to the Asiatic Society, through Dr. A. Neil, the following papers—

I. On the geological features, &c., of the country in the neighbourhood of Bunnoo and the sanitarium of Shaikh Boodeen.

II. Extract from a report by Captain H. Mackenzie on the antiquities of Guzerat.

III. Inscription on the Dharian Baolee.

IV. Inscription on the Mugbura at Hailan.

V. Illustrated table of coins occurring in the bazars of the district.

4. From Lieutenant-Colonel R. C. Tytler, through Mr. Grote, observations on a few species of Geckos alive in his possession.

Baboo Rajendra Lal Mitra then read his paper on the Buddhist remains of Sultangunge.

The paper having been read, a vote of thanks was passed to the Baboo for his interesting remarks.

In consequence of the lateness of the hour, the paper on the antiquities of Guzerat by Captain Mackenzie was not read.

The meeting was then made special, pursuant to notice, in order to decide upon the proposition of the Council, relative to the transfer of the Society's museum to Government.

The Chairman reported to the meeting, that in accordance with a vote passed at the ordinary monthly meeting in January last, the correspondence with Government on the subject of the transfer of the museum had been circulated to non-resident members, and their votes taken on the following proposition:—

"That the Council be authorized to enter into definite and conclusive arrangements with the Government of India, relative to the proposed transfer of the Society's museum, in accordance with the terms of the correspondence."

The result was—

For the proposition, 73.

Against, 1.

Majority in favor of transfer, 72.

The proposition was then put to the vote of the meeting by the Chairman, and the votes were found to be as follows:—

For the transfer 17.

Against, none.

The sum of the votes of resident and non-resident members were therefore as follows:—

	For the proposition.	Against it.
Resident members, ...	17	0
Non-resident members, ...	73	1
Total,.....	90	1

And the proposition was carried.

For April, 1864.

The monthly general meeting of the Asiatic Society of Bengal was held on the 6th instant.

A. Grote, Esq., in the chair.

The proceedings of the last meeting were read and confirmed.

Presentations were announced—

1. From his Highness Prince Gholam Mohammad, a copy of "Blagdon's History of India," and a copy of his revision of a work entitled "The History of Hyder Shah and of his Son Tippoo Sultan," with a framed portrait of his father, Tippoo Sultan.

2. From the editor of the *Calcutta Christian Intelligencer*, the three first numbers of his magazine for 1864.

3. From Captain C. Mead, Royal Artillery, through Baboo Rajendra Lal Mitra, a stone slab from Buddha Gaya bearing a Sanscrit inscription.

4. From Major H. Raban, ear-rings worn by a Rengmah Naga chief, being made of the hair of three enemies of the Angami Naga tribe, killed in fight.

5. From Col. J. C. Brooke, specimens of minerals from the Aravalli Mountains.

6. From Dr. Anderson, two botanical and some zoological pamphlets.

7. From J. Avdall, Esq., a copy of Victor Langlois' "le Trésor des chartes d'Arménie ou Cartulaire de la Chancellerie Royale des Roupéniens."

The Secretary exhibited some photographs by A. C. Crommelin, Esq., of the fossil lately discovered by Major Gowan, in the Mahadeva sandstone of Central India. He had received information from Mr. Carnac that the fossil in question was now on its way to Calcutta, and it would be necessary to await its arrival before its nature could be confidently determined.

Colonel Guthrie exhibited a pair of elephant tusks of unusual size.

A letter from Dr. Archer intimating his desire to withdraw from the Society was recorded.

The following gentlemen, duly proposed at the last meeting, were balloted for and elected ordinary members:—

J. L. Stewart, Esq., M. D.; H. Blochmann, Esq.; the Rev. W. G. Cowie; and the Hon'ble Maharaja Mirza Vijaya-rám Gajapati Raz, Munniam Sultan Bahadur.

The following gentlemen were named for ballot as ordinary members at the next meeting:—

Dr. Bird, Civil Surgeon, Howrah,—proposed by Mr. Blanford, seconded by Dr. Anderson.

N. S. Alexander, Esq., C. S.,—proposed by Mr. W. L. Heeley, seconded by Mr. Blanford.

Dr. J. B. Barry,—proposed by Mr. Blanford, seconded by Dr. Partridge.

G. W. Cline, Esq.,—proposed by Mr. H. F. Blanford, seconded by Mr. W. L. Heeley.

Baboo Ramá Nath Bose,—proposed by Baboo Rajendra Lal Mitra, seconded by Baboo Jadava Krishna Siñha.

The following letter from J. Mulheran, Esq., on the subject of the caves of Ajunta and Ellora, addressed to Colonel Thuillier, was read:—

"Having lately visited the Fort of Dowlatabad, and the caves of Ellora and Ajunta, and taken a number of photographs of the same, in compliance with the wish expressed in your letter of the 6th October, 1863, I beg prominently to notice that there is a large slab in one of the recesses of the Jumma Musjid of the Dowlatabad Fort, which is covered with Pali characters similar to those in cave

No. 26 at Ajunta. I beg to add that I have no doubt that this building, although now known as the Jumma Musjid, existed long prior to the times of Mahomed, and that it was originally used as an audience hall by the ancient kings of the country. It is upwards of 150 feet in length, and has three rows of remarkable stone pillars running along its entire length. Since its occupation by Mahomedans a dome of brick has been added to the centre.

"2. As Dowlatabad was formerly known as Deoghur, and is believed to have been fortified by Buddhists, I feel convinced that a translation of the characters to which I have referred, will throw light not only upon the date of the fort itself, but upon the dates of the neighbouring caves of Ellora and Ajunta. The inscription at present is covered with *chunam*, or rather with two or three coats of white-wash; but having removed a portion of these, I am able to state that the characters are in perfect preservation. A sketch accompanies [this letter] showing the position of the slab referred to, which is nearly 4 feet square, and has, I believe, hitherto escaped notice.

"3. Owing to the kind aid of Major Gill, who has charge of the Ajunta caves, I was able to take a dense negative of the interior of cave No. 26, and as he has already furnished the Madras government with *facsimiles* of the Pali inscription of the Ajunta excavations, I would respectfully suggest his being asked, through the Resident of Hydrabad, to furnish a copy of the inscription in the recess of the Dowlatabad Jumma Musjid.

"4. No reference having been made to the caves at Mahore in any work hitherto published, I beg to mention that Captain Pearson accompanied me over portions of those in one of the ravines under the town of Mahore, and that they are similar in character to the caves of Ellora and Ajunta. All, however, are at present more than half full of mud, little more than the heads and arms of the sculptured figures being visible. I beg further to notice that there are a number of remarkable stone temples known as Himarpanti, or Demon erections, scattered over the country between Ellora and the Godavery, which the people admit to be of Buddhist origin; the tradition relating to them having reference to one of the Buddhist kings of Ceylon of the name of Raon, who is annually slaughtered in effigy by Hindoos of all denominations.

"5. I have not yet been able to obtain access to papers in the possession of the Jains of Berar, which would, I feel convinced, throw light upon much that is interesting in the habits and customs of a people that formerly ruled the greatest portion of India. I have, however, lately been informed that Dr. Haug of Poona has succeeded in obtaining possession of a number of Jain books in the Pali character, and that he intends to use them in illustration of the Jain literature and history.

"6. If considered necessary, I will furnish photographs of some of the most remarkable of the Himarpanti temples, giving views of their interiors as well as of their elevation. The most ancient are sunk three or four feet below the level of the surrounding ground, and are so covered in as to be barely perceptible to those ignorant of their locality."

The Council submitted for the approval of the Society, the following report from the Philological Committee, which had been adopted by them:—

REPORT.

The Philological Committee recommend to the Council that the following offers to edit works in the *Bibliotheca Indica* be accepted:—

1. From Pundit Jayanárâyana Tarkapanchánana, Professor of Philosophy in the Sanscrit College, to edit the *Nyáya Bhâshya* of Vátsyáyana.

This is a very rare work. Three MSS. are available for the text. It is the earliest commentary on the Nyáya aphorisms, and is of the utmost importance for ascertaining the doctrines of the ancient as opposed to the modern Naiyáyika school. It will occupy about two Fasciculi.

2. From Dr. Mason of Tounghoo, to print a Pali Grammar prepared by him from a Native Grammar found in a Burmese monastery. Mr. Grote and Dr. Sprenger formerly reported favourably upon the MSS. Dr. Mason proposes printing the Grammar at the "Tounghoo Karen Institute Press," and requests that he may have 100 copies.

3. From Pundit Rámnárâyana, to edit the Sutras of Asvaláyana with the Vritti. This is the authority for the sacrificial ceremonies of the Hotris or Priests connected with the Rig Veda. It will occupy about six Fasciculi.

4. From Captain Lees, to superintend the editing by a Moulavy of the poem of Ramyn and Wais. The Philological Committee refer for an account of this most rare and valuable ancient Persian poem (translated from the Pehlevi) to the letter from Dr. Sprenger in the Journal No. II. for 1863. Only one MS. is known to be extant, and it is of great importance that a poem possessing so many claims to our notice should be preserved by printing from the many accidents incidental to MSS. in such a climate as Bengal.

Communications were received—

1. From Lieut.-Colonel R. C. Tytler, "Observations on keeping salt-water fish alive for a considerable time."

2. From H. F. Blanford, Esq., A note on the late hail-storm in Calcutta.

3. From Colonel J. C. Brooke, through Captain W. N. Lees, A paper descriptive of "The Mines of Khetree in Rajpootana."

4. From Captain H. G. Raverty, "The Pushto or Afghan Language from an American Point of View."

5. From Dr. A. Wise, F. R. S., A paper entitled "Peculiarities and Uses of the Pillar Towers of the British Islands."

6. From J. E. T. Aitchison, Esq., M. D., F. R. C. S., F. L. S. E., "Remarks on the Vegetation of the Islands of the Indus River."

7. From Baboo Gopeenauth Sen, An Abstract of the Hourly Meteorological Observations taken at the Surveyor General's Office in January last.

8. From the Under-Secretary to the Government of India, Public Works Department, Copies of Major-General Cunningham's Diaries of Occupations as Archæological Surveyor for the months of November and December, 1863, and January, 1864.

The Hon'ble the Lieutenant-Governor then read to the meeting portions of letters received from the Hon'ble Ashley Eden, giving an account of the principal incidents of his journey to the capital of Bhotan. Colonel Thuillier also exhibited maps of the route compiled from information received from Captain H. Godwin Austen, Topographer to the Bhotan Expedition; and offered some remarks in explanation of the circumstances under which the data for these maps had been obtained.

The thanks of the meeting were voted to the Hon'ble the Lieut.-Governor and Colonel Thuillier for the above interesting communications.

Colonel Tytler's and Mr. Blanford's papers were then read to the meeting, and in the discussion which ensued on the latter paper, some observations of interest were made by Dr. Brandis and the Hon'ble Mr. Beadon, which were recorded for publication with the original paper.

For May, 1864.

Lieut.-Col. J. E. Gastrell, in the chair.

The proceedings of the last Meeting were read and confirmed.

Presentations were received—

1. From Col. H. L. Thuillier, a copy of the Instructions for taking Meteorological Observations with tables, By Sir H. James, R. E.

2. From Kongl. Norske Frederiks Universitets Secretariat, several works published by the University, and other Norwegian works.

3. From Professor C. A. Holmboe, 4 pamphlets.

4. From Syud Keramat Ali, Hooghly, a copy of his work entitled Byan Makhza 'Alúm.

5. From the Hon'ble L. S. Jackson, a copy of an Inscription on a brick-built mosque at Bagha, in Rajshahye.

6. From W. S. Atkinson, Esq., specimens of *Streptaulus Blanfordi* and *Clausilia Iös* from Darjeeling.

7. From Lieutenant-Colonel R. C. Tytler, a collection of fishes, mammalia and minerals.

8. From the same, through A. Grote, Esq., specimens of Andamanese Geckos, in spirit.

9. From the Hon'ble Ashley Eden, a collection of bird skins and a Pteromys, collected during the Bhotan expedition.

Letters from R. H. Wilson, Esq., F. L. Beaufort, Esq.* and the Hon'ble E. P. Levinge, intimating their desire to withdraw from the Society were recorded.

The following gentlemen, duly proposed at the last meeting, were balloted for and elected ordinary members:

Dr. R. Bird, Civil Surgeon, Howrah: Dr. J. B. Barry; N. S. Alexander, Esq., C. S.; G. W. Cline, Esq. and Baboo Ramá Nath Bose.

* Announced in error. See Proc. for June.

The following gentlemen were named for ballot as ordinary members at the next meeting :—

Brigadier-General H. G. D. Showers,—proposed by Mr. Grote seconded by Colonel Thuillier.

R. E. Goolden, Esq.,—proposed by Dr. Partridge, seconded by Mr. Blanford.

J. O.' B. Saunders, Esq.,—proposed by Captain W. N. Lees, seconded by Mr. Blanford.

Moulvi Moula Bukhsh Khan Bahadoor of Patna,—proposed by Moulvi Abdool Luteef Khan Bahadoor, seconded by Mr. Blanford.

Baboo Jadu Nath Mookerjee, of Rajshahye,—proposed by Mr. Heeley, seconded by Mr. H. F. Blanford.

As a corresponding member, E. Blyth, Esq., Associate Member of the Society,—proposed by Dr. Jerdon.

A discussion arose on this nomination, Mr. Blyth being already an Associate Member of the Society, and it appearing doubtful, whether any additional distinction would be conferred, by his election as a corresponding member ; it was, therefore, proposed by Dr. Brandis, that as Mr. Blyth is now an Associate Member of the Society, the nomination be referred to the Council for a report ; which proposition being put to the vote was adopted by the meeting.

The Council reported that they had elected Colonel H. L. Thuillier and H. Scott Smith, Esq., as members of the Council, in place of Messrs. Cowell, and H. Leonard, who had left for Europe.

Communications were received—

1. From Reverend M. A. Sherrings, L. L. B., and C. Horne, Esq. C. S., a paper entitled "Description of the Buddhist Ruins at Bakariya Kund, Benares," with illustrations of plans and photographs.

2. From the Under-Secretary to the Government of India, Public Works Department, a copy of a report on the proceedings of the Archæological Surveyor to the Government of India, for 1862-63.

3. From Baboo Gopeenauth Sen, an abstract of the Hourly Meteorological Observations taken at the Surveyor General's office in February last.

The paper of Colonel Brooke on the mines of Khetree, in Rajpootana, and that of the Reverend M. A. Sherrings, L. L. B., and C. Horne, Esq. C. S., describing the Buddhist ruins at Bakariya Kund, Benares, were read.